County Council of the County of Lanark
Education Committee

TWENTY-FIRST
ANNUAL REPORT

ON THE

MEDICAL INSPECTION, SUPERVISION, AND TREATMENT OF SCHOOL CHILDREN

1929-1930

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TO THE CHAIRMAN AND MEMBERS OF THE EDUCATION COMMITTEE OF THE COUNTY OF LANARK.

Mr. Chairman, Ladies and Gentlemen,

We beg to submit the Twenty-First Annual Report on the Medical Inspection, Supervision, and Treatment of School Children in the County of Lanark for the year ending 31st July, 1930.

We are,

Your obedient servants,

JOHN MACINTYRE.
W. JONES MACKINNON.

School Medical Inspection Offices,
3 Clydesdale Street,
Hamilton, November, 1930.

LIST OF STAFF

NORTHERN DIVISION.	SOUTHERN DIVISION.
Principal School Medical Officer.	**Principal School Medical Officer.**
JOHN MACINTYRE, M.B., Ch.B., D.P.H.	W. JONES MACKINNON, M.D., C.M., D.P.H.
Assistant School Medical Officers.	**Assistant School Medical Officers.**
IAN C. MACKENZIE, L.R.C.P. & S.Ed., D.P.H.	ANDREW G. REEKIE, M.B., Ch.B., D.P.H.
CATHERINE B. WILSON, M.B., Ch.B., D.P.H.	JOHN YOUNG, L.R.C.P. & S.Ed., D.P.H.

ANN K. CORMACK, M.B., Ch.B.

Dental Surgeons.	**Dental Surgeons.**
WILLIAM KERR, L.D.S.	R. JARDINE BEATTIE, L.D.S.
ALEXANDER RAE, L.D.S.	ANDREW C. F. RANKIN, L.D.S.
ARCH. W. M. WATSON, L.D.S.	ELIZ. WATSON, L.D.S.

Part-Time Ophthalmic Surgeons.

ERNEST THOMSON, M.A., M.D., F.R.F.P.S.G.	JAMES R. WATSON, M.A., B.SC., M.D., D.P.H.
H. SOMERVILLE MARTYN, M.A., M.B., CH.B.	JAMES A. WILSON, M.D., D.P.H.

JOHN A. MORTIMER, M.D., M.R.C.P.E.

Part-Time Ear, Nose, and Throat Specialist.

JAMES ADAM, M.A., M.D., F.R.F.P.S.G.

NURSES.

ISOBEL T. COCHRAN.	MARTHA M. CHISLETT.
ANNIE N. DOUGLAS.	ANNIE DOBIE.
FLORENCE D. FLEMING.	AMY T. HISLOP.
ISABEL MACKINNON.	FRANCES McKEE.
MAY B. B. YOUNG.	ISABEL TAYLOR.
MARJORIE McDOUGALL.	MARY A. YATES.
(*a*) MINNIE B. H. WOLFE.	MARJORY F. MACGILLIVRAY.
MARGARET C. R. SUTTER.	GEORGINA WALLACE.
AGNES L. D. MILLER.	MARY M. BENNETT.
HELEN PARK.	JEAN HANNAH.
	(*b*) MYRA E. SMITH.

Clerical Staff.

ROBERT A. M'ROBBIE.	HELEN S. STEVEN.
JOHN PORTER.	JEAN B. THOMSON.

SARAH M. B. CLARK.

(*a*) Resigned 15/11/29. (*b*) Appointed 21/10/29.

SCHEME OF MEDICAL INSPECTION, SUPERVISION, AND TREATMENT.

I.

LIST OF STAFF.

The personnel of the Medical Inspection, Treatment, and Nursing Staffs is as detailed on page 6 of this Report. On 15th November, 1929, Miss Wolfe resigned her appointment as School Nurse, the vacancy being filled by the appointment of Miss Myra Smith. No other changes in the staff fall to be recorded.

II.

(*a*) Number of Schools in the whole Educational Area :—

Primary	224
Secondary	21
Special Schools or Classes	11

(*b*) Number of Children on Register ...	99,394
Number of Children in Average Attendance	91,146

At the beginning of the present session a new primary school at Glengowan, near Caldercruix, was formally opened. This school replaces Drumbreck Primary School which had become antiquated and unserviceable. In addition to a very large number of renovations and minor alterations at existing schools, two extensive annexes were completed during the year, one at Carluke Higher Grade School and the other at Strathaven Academy. Work in connection with the new school for invalid children at Dalton is proceeding and will probably be completed during the course of next school year.

III.

NUMBER OF VISITS TO SCHOOLS FOR SYSTEMATIC EXAMINATION IN ACCORDANCE WITH SCHEME OF INSPECTION.

During the year under review the School Medical Officers paid 1,205 visits in connection with the routine examination of the pupils. As in former years, the groups of children examined at these visits were :—(1) Entrants, 5-6 years old ; (2) Intermediates, 9 years old ; (3) Seniors, 12 years old ; (4) Secondary Pupils, 16 years old ; and (5) Special Cases. In the event of the school leaving age being raised to 15 years it will be necessary to alter the routine examination of the senior children from 12 to 13 years old.

IV.

NUMBER OF SPECIAL VISITS BY THE SCHOOL MEDICAL OFFICERS.

Following upon the routine examination of the pupils, a regular course of revisiting of the schools for the purpose of supervision is an integral part of the scheme of school medical inspection. At these visits which, unlike the regular yearly visit for routine medical examination, are unannounced, and are therefore "surprise" visits, children who have been found at the routine inspection to be suffering from some condition calling for remedy are again examined to ascertain what measures have been taken to have their condition rectified. Again, children who have been absent from school at the routine examination on account of sickness, or, perhaps, from wilful abstention, are presented to the medical officer for examination and the continuity of the child's medical history is thus preserved. Hundreds of these latter children are examined each year by the medical officers at their subsequent visits to schools and records of children obtained which would otherwise have been lost. At these visits, also, numbers of special cases are presented by the class teachers to the medical officer for his opinion—cases of defective vision, impaired hearing, mental backwardness, debility, neglect, and so on, which may have collected since the doctor's previous visit. It will thus be seen that the regular supervision of the pupils is an exceedingly important branch of school medical work.

In addition to these visits of supervision many visits were made to schools by the medical staff to examine applicants for food, boots, clothing, part-time employment certificates, and also to conduct examinations of invalid children who may require to have special education provided. Absentee children whose names have been submitted by local School Management Committees for special report are also examined at the school nearest to their homes as only in exceptional circumstances are such children seen at their residence. Special visits to schools are also paid by the medical staff during periods of epidemic and also for purposes of sanitary supervision. The total number of special visits paid by the school medical officers during the year amounted to 1,044.

The numbers of scholars actually seen at the revisiting of the schools during the present year amounted to 13,318. This is somewhat lower than the corresponding figures for last year, but it has to be remembered that the entire medical staff was engaged for twenty school days in the weighing and measuring of the scholars in connection with the special milk investigation, and consequently did not manage to overtake the normal programme of revisiting.

For the number of children examined under the various categories—absentees, employment, malnutrition, etc.—see summary on pages 16-17 of this Report.

V.

SANITARY CONDITION OF SCHOOLS.

There is nothing of special importance to record under this heading. The sanitary condition of the schools continues to be satisfactory, but there is still reluctance on the part of many class teachers to have their class-room windows sufficiently open to ensure adequate ventilation. In rural districts the dry earth closet is rapidly disappearing and only persists in those schools where a water carriage system is, meantime, impracticable.

VI.

(A) ORGANISATION AND ADMINISTRATION.

No change has occurred during the year in the scheme of organisation as detailed in the Report for year ending July, 1920. Any alteration which may arise as a result of the Local Government (Scotland) Act, 1929, will be dealt with in next year's Report.

(B) SCHOOL NURSES.

1. Number on Staff.

The total number of nurses on the Staff is 20. These are allocated as follows:—7 for medical inspection and supervision, and 13 for treatment. In the event of new clinics for the treatment of minor ailments being established, an addition to the nursing staff will, of course, be necessary.

2. Duties in School.

It might be well to recapitulate the duties of the nursing staff engaged in school medical inspection. Briefly, these are as follows:—Conduct the weighing and measuring of all the pupils: examine the clothing, heads and bodies of children suspected of uncleanliness; prepare the pupils for the medical officer's examination and fasten the clothing after the examination is completed; conduct the preliminary testing of the visual acuity of the scholars and assist the medical officer in issuing any notices that may be necessary to send to parents. In addition to assisting in school medical inspection work, each nurse assists at the minor ailments clinics on, at least, two afternoons a week.

3. Duties in Visiting.

The actual number of children requiring a home visit as a result of medical inspection at school has shown a very decided diminution during recent years. However, there is still a considerable amount of home visiting necessary in connection with children in attendance at the clinics, and, especially, at the minor ailments clinics. These latter are principally children who have ceased attending the treatment centre before a complete cure has been effected or who are not having the prescribed treatment properly carried out at home during the intervals of their attendance at the clinic. This, however, is also showing a definite tendency to lessen as the clinic absentees are now secured at school and mothers are being summoned to the clinic for instruction in carrying out home treatment.

The frequent visiting of a nurse to the schools is productive of much good, inasmuch as cases of skin disease, eye disease, etc. are recognised in their incipient stages and where clinic facilities exist prompt treatment is afforded. During the year under review the number of home visits paid by the nursing staff amounted to 800.

(C) ARRANGEMENTS FOR "FOLLOWING UP."

As has been explained in preceding paragraphs the systematic revisiting of schools by members of the medical and nursing staffs maintains a regular supervision of all cases found to require such supervision. The necessity for "following up" cases of neglect or bodily ailment by home visiting has diminished markedly in recent years, the establishing of treatment clinics having brought about a marvellous change in this respect. That is not to say that cases of neglect do not exist, but it is the unanimous opinion of the medical officers engaged in the school medical service that cases of gross neglect are now very rare indeed. However, when such cases do arise, valuable help is given by the local Sanitary Authorities in dealing with the homes and clothing of the children concerned, and the officers of the Society for the Prevention of Cruelty to Children also render great assistance. Only in extreme cases is it necessary to prosecute in court.

(D) SUPERVISION OF INFECTIOUS DISEASE, INCLUDING SCHOOL CLOSURE.

In order to keep the various public health authorities in close touch with the prevalence of infectious or contagious diseases occurring in school, arrangements have been made whereby all such cases, whether compulsorily notifiable or not, are intimated to the health authority concerned. Prompt exclusion from school is exercised in every case of infectious or contagious disease, the parents being immediately notified of the fact. No child who has been excluded from school for infectious or contagious disease should be readmitted by the teacher without first producing a clearance certificate from the family doctor or the public health authority, or, in the absence of such certificate, without being examined by the school medical officer. The delay in granting clearance certificates for children who have received hospital treatment for infectious disease has been frequently a source of concern to head teachers and attendance officers.

The practice which formerly existed of closing down schools whenever an epidemic made its appearance in a district is no longer regarded as having much effect in controlling the course of the outbreak and it is now a rare occurrence for school closure to be authorised. This has been recognised by the Department of Health for Scotland who issued a Memorandum dealing with the subject, emphasising that only in very exceptional circumstances should the closure of a school, or even of a department of a school, be resorted to during epidemic periods. In no instance was it found necessary to recommend school closure during the year under review.

The County Bacteriologist (Dr. Brownlie) examined and reported upon all specimens submitted to him by the school medical officers. During the year 41 such reports were received—for tinea, 31 ; suspected diphtheria, 9 ; and sputum, 1.

(E) CO-ORDINATION WITH PUBLIC HEALTH SERVICES

As in former years the closest co-operation with the public health and sanitary services both in the County and Burghs was maintained and information regarding infectious and contagious diseases was freely exchanged. Special disinfection of schools or of certain selected classrooms was always promptly carried out by the sanitary officials whenever a request for such measures was made by the School Medical Officer. As was pointed out in the Report for year 1927-8, it is a wise policy, when an epidemic involving many school children appears in a locality, to fumigate or disinfect the whole school, or, at least, these classrooms from which the bulk of the affected children are drawn. Apart altogether from the intrinsic value of the disinfecting, there has to be considered the excellent mental effect which the procedure has on the minds of the parents, pupils, and teachers. Parental apprehension is allayed, confidence is restored in the minds of both pupils and teachers, and an atmosphere of security is created.

(F) PRESENCE OF PARENTS AT INSPECTION AND TREATMENT CENTRES.

The number of parents who attended at the routine medical examination of their children showed an increase this year, especially in the case of the infant children. Although the percentage still remains relatively small, it is otherwise where children are summoned to attend at the treatment centres. In these cases the percentage of parents who accompany their children is very high and this applies to every type of clinic—ophthalmic, dental, minor ailments, and ear, nose, and throat. At the ophthalmic clinics, especially, it is the exception to find a child attending unaccompanied by his mother or other responsible person. At the dental clinics the senior pupils rather scorn the idea that they require the presence of their parents, but the younger children are almost invariably accompanied by a parent or an elder sister.

When a special examination of a child is necessary, either for physical or mental disability, a request is always sent to the parent or guardian to attend along with the child and, without exception, the request is complied with. In any case the medical officer would probably defer the examination in the absence of the child's parent or guardian and this has come to be now recognised.

(G) SPECIAL EXAMINATIONS.

(*a*) *For Infectious or Contagious Diseases.*—Whenever an intimation is received from a head teacher that there is a suspected case of infectious or contagious disease in school, steps are taken to have the school visited at the earliest possible time to investigate the matter. It is usually found, however, that the pupil suspected has been temporarily excluded pending the medical officer's examination. Teachers are now becoming much more alert in recognising probable cases of infectious disease and are taking full advantage of the school medical staff in having their fears confirmed or allayed. The regular visits of the minor ailments clinic nurses to school are warmly welcomed by the teaching staff.

(*b*) *Absentee Pupils.*—During the past year a considerable number of special examinations was conducted of children whose absence from school was of a prolonged nature and in whose case the local School Management Committee desired guidance. These examinations are conducted at convenient centres after written appointment has been made with the parents. On the completion of the examination a report on the children examined is sent to the clerk of the School Management Committee concerned. The following are the areas from which requests for examination of absentee children were received and the number of children examined :—

Old Monkland	214
Bothwell	116
New Monkland	102
Hamilton	79
Dalziel	56
Rutherglen	46
Cambusnethan	43
Blantyre	31
Cambuslang	23
Dalserf	20
Shotts	12
Cadder	12
Lanark	6
Lesmahagow	3
East Kilbride	3
Southern	2
Avondale	1
Carnwath	1
Stonehouse	1
Douglas	1
	772

(*c*) *Physically Invalid Children.*—Throughout the course of the year large numbers of children were submitted for special examination on account of suspected physical unfitness. The presumption was that these children were unable to attend an ordinary school without detriment to their health or scholastic progress, and that special educational facilities would have to be provided for them. It was found, however, that in the majority of instances the physical disability was either of a temporary nature or was not such as to preclude the child from continuing at an ordinary school. On the other hand, many of the children were found to suffer from such a degree of impairment of health that ordinary school attendance was not advisable until a definite physical improvement could be noted. In fact, certain of the children will require special education throughout the whole of their school life.

The attitude of the parents towards a child's attendance at a special school has undergone a very remarkable change in the past few years and applications for admission to the schools for invalid children are generally considerably in excess of the available accommodation. The excellent results from these schools and the knowledge that a child in a special school will be transferred back to an ordinary school on regaining normal health have materially altered the parents' view. Consequently, there is now little, if any, parental reluctance to send a child for special education when such is recommended by the school medical officer. As can be understood, two or more members of the same family may be simultaneously in attendance at a special school and it is frequently found that application for admission comes from a parent on behalf of a normal child in order to maintain the " family connection " with the special school.

The educational problem of how best to deal with children suffering from a more or less aggravated form of epilepsy has only been partially solved. The mildest type, known as " petit mal," may be admitted to one of the special schools for invalid children, but where the disease is at all severe attendance at these schools is unsuitable for the child concerned and not in the best interests of the other pupils. At present there is only one institution which undertakes the education of epileptic children belonging to outside educational bodies, namely, the Colony of Mercy, Bridge of Weir. This, however, does not meet the needs of Roman Catholic epileptic children. These latter may be admitted to such an institution as St. Charles', Carstairs, only, if in addition to their physical disability, they can be certified as mentally abnormal. The problem is one which does not affect this county only, but applies equally to the whole of Scotland. How far Birkwood Institution, Lesmahagow, could be adapted for the education of epileptic children is a matter for consideration. From the curative, as well as from the educational standpoint, there is little doubt that, in the great majority of cases, residential institutional treatment of these children is far superior to home treatment.

The total number of physically invalid children specially examined during the year amounted to 482. This number includes 2 blind children, 7 deaf-mute children, and 8 cases of high myopia.

(*d*) *Mentally Invalid Children.*—During the year under review 105 children who were reported as suffering from more or less pronounced mental disability were specially examined by the school medical officer. In 19 cases the disability was of such a degree of severity as to render the child uneducable. These cases were duly reported to the General Board of Control and to the Parish Councils concerned. Included in the latter cases were children who, after more or less prolonged trial at the special classes for mentally retarded children, were found to be unable to profit by the instruction given, or who had, otherwise, become unsuitable for further attendance.

(*e*) *Students in Preliminary Training.*—In accordance with the regulations for the Preliminary Education, Training, and Certification of Teachers, 97 candidates were examined by the School Medical Officers. In the great majority of cases the physique and general health of the candidates were very satisfactory, but several cases of uncorrected defective vision and dental unfitness had to have their acceptance as students deferred till suitable treatment had been given by an ophthalmic surgeon or dentist.

The practice which has been in force in this County for many years of giving all students in training a thorough yearly medical examination continues to be followed out, so that the risk of rejection, on medical grounds, by the Training College Authorities might be reduced to a minimum. In addition, medical examination is afforded to all senior pupils at the Secondary Schools who are about to proceed to a University with a view to entering the teaching profession.

(*f*) *Visits to Special Classes.*—Frequent visits were paid throughout the year to the special classes for physically invalid, mentally retarded and deaf-mute children. A careful record is kept of the physical and scholastic progress of each child and when, in the opinion of the medical officer, the health of a child is sufficiently restored to permit of his attendance at an ordinary school the parents are notified of this and the transference duly carried out. As can be readily understood this transference does not apply to mentally invalid, blind, or deaf-mute children for whom special education is necessary throughout the whole of their school life.

(*g*) *Employment of Children Act.*—During the year 717 applicants for licence to engage in part-time employment were examined by the school medical officers, and of this number 701 were passed as suitable persons to receive a licence. Applications for milk delivery still continue to furnish the largest percentage, next in order of frequency being newspaper delivery. A careful watch is kept over the health and cleanliness of the children who have been granted a permit and should the medical officer report adversely, whether as regards health or cleanliness, on any child engaged in part-time employment, a recommendation for the temporary or complete withdrawal of the licence is immediately sent to headquarters.

The accompanying Table shows in detail the number of applications received, granted, and refused, and the nature of the employment for which application was made.

(*h*) *Adult Blind Persons.*—In accordance with the Blind Persons Act, 1920, examination was made of 17 applicants to ascertain whether they were physically and mentally fit to undergo a regular course of technical training.

Bye-Laws under the Employment of Children Act, 1903, and Education (Scotland) Act, 1918.

STATEMENT SHOWING NUMBER OF CHILDREN EXAMINED, NUMBER OF CERTIFICATES GRANTED OR REFUSED, AND NATURE OF EMPLOYMENT.

SCHOOL MANAGEMENT AREAS.	No. of Children Examined.	Certificates.		NATURE OF EMPLOYMENT.			
		Granted.	Refused.	Milk Carrier.	Delivering Newspapers.	Delivering Messages.	Lather Boy.
Avondale	7	6	1	4	...	2	...
Biggar	7	7	...	1	3	3	...
Blantyre	10	10	...	...	9	1	...
Bothwell	83	83	...	30	33	20	...
Cadder	29	25	4	20	4	1	...
Cambuslang	93	92	1	58	25	8	1
Cambusnethan	23	23	...	10	11	2	...
Carluke	15	15	...	2	9	3	1
Carnwath	4	4	...	...	2	2	...
Dalserf	26	26	...	6	15	4	1
Dalziel	45	43	2	17	16	9	1
Douglas	...	...	...	...	...	...	...
East Kilbride	11	11	...	1	4	6	...
Glassford	...	...	...	...	...	...	...
Hamilton	29	29	...	10	11	5	3
Lanark	20	20	...	10	7	3	...
Lesmahagow	...	...	...	...	...	...	...
New Monkland ...	31	29	2	16	8	4	1
Old Monkland	104	100	4	50	27	21	2
Rutherglen	153	151	2	100	27	19	5
Shotts	21	21	...	7	10	4	...
Southern	...	...	...	...	...	...	...
Stonehouse	6	6	...	4	...	...	2
	717	701	16	346	221	117	17

(*i*) *Members of Education Committee's Staff.*—During the year 11 members of the Committee's staff and applicants for the post of attendance officer or janitor were medically examined and reported upon.

(*j*) *Examination of Necessitous Children.*—Owing to the long continued and wide-spread unemployment throughout the County, many applications were received from parents for the supply of boots, clothing, or food. The number of children submitted during the year to the medical officers for examination and report amounted to 665.

(*k*) *Special Milk Investigation.*—A special investigation to ascertain what influence a regular daily ration of milk would have in promoting an increase in the height and weight of school children was carried through in the County during the Spring months of this year, the investigation being under the direction of the Department of Health for Scotland. The total number of children concerned in the investigation was 20,000 of whom 10,000 were to receive the milk ration and 10,000 to act as a control. The statistical results which are being worked out and tabulated at the Department of Health, Edinburgh, are not yet available but a report on the general working of the investigation as it affected the school organisation and the apparent results of the test has been submitted to the Education Committee of the County by the School Medical Officer. This special report forms an appendix to the present Annual Report as many requests have been received from School Medical Officers throughout the country for information as to the procedure adopted in school for the issuing of a regular milk ration and enquiring what results have been observable.

VII.

THE PHYSICAL CONDITION OF THE SCHOOL CHILDREN.

(A) TOTAL NUMBER OF CHILDREN EXAMINED.

(*a*) At Systematic Examinations :—

	Boys.	Girls.
Entrants (6 years old)	5,095	5,035
Intermediates (9 years old)	5,900	5,792
Seniors (12 years old)	4,560	4,503
Secondary Pupils (16 years and over) ...	360	320
	15,915	15,650

Total	31,565
(*b*) Special Cases (non-routine)—	5,217
Grand Total ...	**36,782**

(*c*) Pupils examined at Re-visits :—

Number examined at 1st Re-visit ...	8,666
,, ,, 2nd ,, ...	3,728
,, ,, 3rd ,, ...	924
	13,318

(*d*) Examination of Students in Preliminary Training :—

Entrants	97
During Training (1st, 2nd, and 3rd years)	201

(*e*) Examination of Physically and Mentally Invalid Children in attendance at Special Classes :—

1. Physically Invalid	642
2. Mentally Invalid	237

(*f*) Special Examination of Physically and Mentally Invalid Children :—

1. Physically Invalid	482
2. Mentally Invalid	105

(*g*) Special Examination of Irregular Attenders :—

Number examined	187

(*h*) Examination of Children under Employment of Children Act (1903) :—

Number examined	717

(*i*) Examination of Adult Blind Persons (Blind Persons Act, 1920)	17
(*j*) Examination of members of the Education Committee's Staff	11
(*k*) Examination of Necessitous Children (Malnutrition, Boots, etc.)	665

SUMMARY OF CHILDREN DEALT WITH UNDER THE SCHEME OF TREATMENT.

1. Dental Treatment :—

Number of Children Dentally Examined	74,818
Number of Children Notified	52,611
Number of Children Dentally Treated	19,852

2. Visual Treatment :—

Number of Children Treated by the Ophthalmic Surgeons	3,165
Number of Children Re-examined by the Ophthalmic Surgeons	4,692
Number of Attendances at the Ophthalmic Clinics	7,857

3. Ear, Nose, and Throat Treatment :—

Number of Children Treated by Nose and Throat Specialists	224
Number of Attendances at Treatment Centres	523

4. Treatment of Minor Ailments :—

Number of Children Treated	8,564
Number of Attendances made	66,442

5. Clinics attached to Special Schools :—

Number of Attendances made	18,542

(B) NUMBER OF CHILDREN NOTIFIED TO PARENTS AS SUFFERING FROM DISABILITIES.

The total number of children notified to parents on account of some disability, whether of a minor or serious nature, discovered in the course of school medical inspection, amounted this year to 11,546, and the total number of disabilities discovered—exclusive of dental defects—was 16,695, that is an average of 1·4 per child notified.

As in former years conditions of uncleanliness of the head or body still constitute the bulk of the cases notified, but it is gratifying to record that there is a distinct improvement this year in this rather distressing condition. The school medical officers are exceedingly strict in all matters pertaining to the bodily cleanliness of the pupils and the standard demanded by them is very high. Consequently, no case of uncleanliness of head or body, however slight, is allowed to pass unrecorded. Nevertheless, the percentage of cases of head vermin has this year fallen to 2·3 as compared with last year's percentage of 2·7, and cases of body vermin to 1·7 as compared with 2·4. Theoretically, of course, there should be no case of uncleanliness amongst the children and this is the goal at which the school medical service is constantly aiming, but one must recognise that conditions at home are, at present, far from normal. With unemployment so widespread and money so scarce, change of garments is often sadly lacking, and could the real inner history of many a household be written it would reveal a constant and heroic struggle to keep up appearances. The wonder is that so many parents at present can send out their children so decently clad. All parents are not endowed with the same moral and mental stamina, and it is a commonplace that negligence is more liable to creep in where poverty exists. Even in the matter of clothing this year's returns of insufficient, ragged, and dirty clothing all show a slight improvement on last year's percentages, and for this the parents of Lanarkshire deserve much credit.

There is no marked change in the nutrition of the children at school although the tendency this year is slightly downward. The percentage of children whose nutrition is "below average" is 3·25 this year as compared with 2·7 last year. The percentages of children suffering from defective vision, squint, etc., remain fairly stationary, and this applies also to cases of ear disease, defective hearing and impairment of speech.

In regard to heart disturbances these appear to be definitely increasing. This does not apply only to cases of organic disease of the heart resulting from rheumatism, chorea, or acute infective fevers, but also to functional disorders of the heart. These latter are found principally amongst the older scholars and especially amongst the 16 years old girl pupils. In these latter cases, all gymnastic exercises of the more strenuous type must cease until the heart has regained its normal function, although, generally, there is no objection to certain free-arm and eurhythmic exercises being engaged in.

Enlargements of the lymphatic glands, especially the submaxillary and cervical, are showing a definite tendency to lessen, this being the third consecutive year in which a decrease has been recorded in the percentage of cases discovered during routine inspection. There is little doubt that school dentistry is an important factor in bringing about this result. Of the various disabilities discovered during the examination of the scholars the following are the more important :—Diseases of the skin (impetigo, septic sores, etc.) 1388 ; external eye diseases (inflamed eyelids, conjunctivitis, etc.) 1,689 ; defective vision 3,842 ; squint 847 ; enlarged tonsils 1,665 ; adenoids 688 ; ear diseases, including excessive accumulation of wax, 504 ; disturbance of heart and circulation 427 ; respiratory diseases (bronchitis, catarrh, etc.) 160 ; nervous diseases 45.

In regard to dental defects, 52,611 children were found to require more or less urgent treatment. A detailed account of the dental condition of the school children is given in a subsequent section of this Report (pages 39-43).

The following statistical Tables (D-X) show the number and percentages of children who suffered from one or other of the disabilities mentioned (pages 20-30).

(C) NUMBER OF CHILDREN RECEIVING ATTENTION EXCLUSIVE OF DEFECTIVE TEETH.

Of the 11,546 children notified as suffering from some disability, 6,674 or 57·8 per cent., were found on subsequent examination to be cured, improved, or under treatment. This percentage is somewhat under that of last year—a fall of 2·6—but this does not mean that fewer cases have received treatment. It has got to be remembered that the ascertainment of what improvements have been effected in the case of notified children is only obtained at the subsequent examination of the children during the school medical officers' re-visits to the schools and this year owing to the extra work involved by the special milk investigation, the normal number of re-visits to schools was not reached. Thus, it is quite probable that, had the usual re-visiting programme been carried out, the percentage of ascertained cures would have been considerably higher than that indicated.

As regards the treatment of minor ailments of the skin, eye, ear, nose, etc., 8,564 children received treatment at the school clinics, the total attendances at the various centres being 66,442. For full details of the work at these clinics see pages 46-48 of this Report.

It is very gratifying to report that the number of cases of defective vision accepting treatment at the school clinics shows no sign of diminishing ; in fact, the whole tendency is towards earlier treatment. Of 4,689 cases of visual impairment discovered at school, whether light or severe, 67.5 per cent. came under the care of the ophthalmic surgeons, and of the 847 cases of squint reported, 91·1 per cent. received treatment either by correcting glasses or by operation. In addition 4,692 cases of defective vision seen previously by the ophthalmic surgeons were re-examined and any alteration found necessary in the spectacles was made. A full report on the visual treatment of the scholars will be found in pages 33-38 of this Report.

For disease of the ear, nose, and throat, 227 children were treated either at Hamilton or Motherwell Clinic, necessitating 523 attendances (pages 44-45).

(D) CLOTHING.

Systematic Cases.							Special Cases.
Number Examined.	Insufficient.		In need of Repair.		Dirty.		Number found Defective.
	Number	Per cent.	Number	Per cent.	Number	Per cent.	
31,565	61	·19	775	2·46	1,506	4·77	156

(E) FOOTGEAR.

Systematic Cases.			Special Cases.
Number Examined.	Unsatisfactory.	Percentage.	Number found Unsatisfactory.
31,565	788	2.49	9

(F) AVERAGE HEIGHTS AND WEIGHTS.

BOYS—AVERAGE HEIGHT IN INCHES.

Average age in years, ...	6½	9½	12½
County of Lanark Average, ...	45·1	51·9	56·2
Anthropometric Standard, ...	44·1	50·7	56
Difference, ...	+1·0	+1·2	+0·2

GIRLS—AVERAGE HEIGHT IN INCHES.

Average age in years, ...	6½	9½	12½
County of Lanark Average, ...	43·8	50·5	57·1
Anthropometric Standard, ...	43·6	50	56·8
Difference, ...	+0·2	+0·5	+0·3

BOYS—AVERAGE WEIGHT IN LBS.

Average age in years, ...	6½	9½	12½
County of Lanark Average, ...	48·2	65·6	78·9
Anthropometric Standard, ...	47	64·9	79·4
Difference, ...	+1·2	+0·7	−0·5

GIRLS—AVERAGE WEIGHT IN LBS.

Average age in years, ...	6½	9½	12½
County of Lanark Average, ...	44·1	60·0	81·5
Anthropometric Standard, ...	44·8	59·3	80·2
Difference, ...	−0·7	+0·7	+1·3

(G) (1) CLEANLINESS OF HEAD.

Systematic Cases.					Special Cases.
No. Examined.	Dirty (including Nits).	Per cent.	Verminous.	Per cent.	No. found defective.
31,565	4,531	14·36	729	2·31	753

(G) (2) CLEANLINESS OF BODY.

Systematic Cases.					Special Cases.
No. Examined.	Dirty (including Nits).	Per cent.	Verminous.	Per cent.	No. found defective.
31,565	3,104	9·83	539	1·70	415

(H) (1) CONDITION OF SKIN—(HEAD).

Systematic Cases.									Special cases.
No. Examined	Ring-worm	Per cent.	Impetigo	Per cent.	Favus.	Per cent.	Other Diseases	Per cent.	No. found defective.
31,565	8	·025	129	·408	0	0	155	·491	151

(H) (2) CONDITION OF SKIN—(BODY).

Systematic Cases.									Special cases.
No. Examined	Ring-worm	Per cent.	Impetigo	Per cent.	Scabies.	Per cent.	Other Diseases.	Per cent.	No. found defective.
31,565	6	·019	248	·785	42	·133	856	2·71	526

(I) NUTRITION.

No. Examined.	Systematic Cases.						Special Cases.
	Average and above Average.		Below Average.		Very bad.		Number found Defective.
	Number	Per cent.	Number	Per cent.	Number	Per cent	
31,565	30,508	96·651	1,025	3·247	32	·101	56

(J) TEETH.

As the dental examination of all school children between the ages of 5 and 12 years, both years inclusive, is undertaken by the Committee's dental surgeons, no record of the condition of the children's teeth is taken by the medical officers at the routine examinations, except in the case of children of 13 years and 16 years old. A full survey of the work of the dental surgeons throughout the year is given in a subsequent section of this Report (pages 39-43).

With regard to the dental condition of the 16 years old pupils, of the 680 examined, 304, or 44·7 per cent., were found to require treatment. If, and when, the regular dental supervision of school children, at present, owing to pressure of work upon the dental staff, confined to children of 12 years and under, is extended to embrace all pupils, irrespective of age, the number of senior pupils found with unsatisfactory dental hygiene should show a greater improvement.

(K) (*a*) NOSE.

No. Examined.	Systematic Cases.						Special Cases.
	Catarrh.		Obstruction.		Other Diseases.		Number found defective.
	Number	Per cent.	Number	Per cent.	Number	Per cent.	
31,565	1,979	6.26	325	1.03	50	·158	118

(K) (*b*) THROAT.

Number Examined.	Systematic Cases.										Special Cases.
	Tonsils.				Adenoids.				Other Diseases.		Number found Defective.
	Slightly Enlarged.		Markedly Enlarged		Probably Present.		Present.				
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
31,565	7,118	22·55	1,466	4·64	1,433	4·54	508	1·61	42	·133	481

(K) (*c*) LYMPHATIC GLANDS (Submaxillary and Cervical).

Number Examined.	Systematic Cases.								Special Cases.
	Palpably Enlarged.		Markedly Enlarged.		Suppurating.		Cicatrices.		Number found Defective.
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
31,565	2,530	8·02	66	·21	8	·025	386	1·22	54

(L) EXTERNAL EYE DISEASES.

Number Examined.	Systematic Cases.										Special Cases.
	Blepharitis.		Conjunctivitis.		Corneal Opacities.		Strabismus.		Other Diseases.		Number found Defective.
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
31,565	1,247	3·95	344	1·09	98	·31	758	2·40	187	·59	937

(M) VISUAL ACUITY.

Number Examined.	Systematic Cases.						Special Cases.
	Good Vision.		Fair Vision.		Bad Vision.		Number found Defective.
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
*21,435	16,185	75·508	4,707	21·959	543	2·533	1.367

*Infant Children not included.

(N) EARS.

Number Examined.	Systematic Cases.						Special Cases.
	Otorrhoea.		Wax.		Other Diseases.		Number found Defective.
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
31,565	325	1·03	310	·98	35	·111	160

(O) HEARING.

Number Examined.	Systematic Cases.				Special Cases.
	Slightly Deaf.		Markedly Deaf.		Number found Defective.
	Number.	Per cent.	Number.	Per cent.	
31,565	326	1·03	13	·041	92

(P) SPEECH.

Number Examined.	Systematic Cases.				Special Cases.
	Defective Articulation.		Stammering.		Number found Defective.
	Number.	Per cent.	Number.	Per cent.	
31,565	222	·70	102	·32	50

(Q) MENTAL CONDITION.

Number Examined.	Systematic Cases.				Special Cases.	
	Dull or Backward.		Mentally Defective.		Dull or Backward.	Mentally Defective.
	Number.	Per cent.	Number.	Per cent.	Number.	Number.
31,565	377	1·19	85	·27	74	77

(R) HEART AND CIRCULATION.

Number Examined.	Systematic Cases.								Special Cases.
	Organic.				Functional.		Anaemia.		Number found Defective.
	Congenital.		Acquired.						
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
31,565	15	·048	159	·504	653	2·069	751	2·38	139

(S) LUNGS.

Number Examined.	Systematic Cases.								Special Cases.
	Chronic Bronchitis.		Tuberculosis.		Tuberculosis Suspected.		Other Diseases.		Number found Defective.
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
31,565	1,041	3·30	0	0	14	·044	28	·088	88

(T) NERVOUS SYSTEM.

Number Examined.	Systematic Cases.								Special Cases.
	Epilepsy.		Chorea.		Infantile Paralysis.		Other Diseases.		Number found Defective.
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
31,565	9	·028	10	·032	37	·117	105	·333	60

(U) TUBERCULOSIS (NON-PULMONARY).

Number Examined.	Systematic Cases.										Special Cases.
	Glandular.		Bones and Joints.		Abdominal.		Skin.		Other Forms.		Number found Defective.
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
31,565	13	·041	30	·095	8	·025	2	·006	0	0	22

X

INFECTIOUS OR CONTAGIOUS DISEASE TABLE

The following Tabular Statement shows the number of Scholars excluded from attendance at School by the School Medical Officers, the disease or cause for which exclusion was necessary, and the various Sanitary Areas in which the conditions occurred :—

SANITARY AREA.	Mumps.	Ringworm.	Scabies	Impetigo.	Epidemic Conjunctivitis.	Other Eye Conditions.	Pulmonary Tuberculosis.	Grandular Tuberculosis.	Osseous Tuberculosis.	Abdominal Tuberculosis.	Scarlet Fever.	Measles.	Chickenpox.	Diphtheria.
COUNTY—														
Upper Ward	..	1	8	4	2	....	....	....	..	..	..	....	....	...
Middle Ward	2	18	88	142	45	3	5	6	2	2	....	....	10	1
Lower Ward	..	....	6	14	....	1	....	....	....	....	....	....	..	..
BURGHS—														
Airdrie	3	3	33	65	11	....	....	1	....	....	....	....	10	....
Biggar	....	..	....	....	....	....	....	....	....	....	....	....	....	..
Coatbridge	1	....	5	42	1	1	....	....	....	....	....	2	....	....
Hamilton	....	2	55	65	59	3	....	....	....	....	....	....	4	2
Motherwell, Wishaw	1	1	1	3	18	....	....	....	....	....	....	....	....	...
Lanark	....	....	....	2	....	....	....	....	....	....	....	....	....	..
Rutherglen	9	8	32	22	11	3	....	3	....	2	....	1	3	..
TOTAL	16	33	228	359	147	11	5	10	2	4	..	3	27	3

(V) RICKETS.

Number Examined.	Systematic Cases.				Special Cases.
	Slight.		Marked.		Number found Defective.
	Number.	Per cent.	Number.	Per cent.	
31,565	347	1·099	6	·019	28

(W) DEFORMITIES.

Number Examined.	Systematic Cases.				Special Cases.
	Congenital.		Acquired (Non-Rachitic).		Number found Defective.
	Number.	Per cent.	Number.	Per cent.	
31,565	121	·383	294	·93	48

(Y) OTHER DISEASES OR DEFECTS.

In the foregoing Tables will be found the record of the principal ailments commonly discovered amongst school children, but, in addition to these, there is always a very considerable number of abnormal conditions found which, although not of frequent occurrence, are often of great importance. The total number of such untabulated conditions found during routine inspection amounted to 254 of which the following are the most important :—Enlargement of thyroid gland 167 ; hernia 8 ; appendicitis 4 ; urinary disturbance 21 ; rheumatism 8 ; nicotinism 7 ; fractures 5 ; Bright's disease 3 ; tape worm 2 ; alopecia areata 2 ; stomatitis 2 ; osteomyelitis 1.

VIII.

SPECIAL SCHOOLS AND CLASSES.

1. Physically Invalid Children.

There are four schools for the education of physically invalid children, namely, Drumpark (serving the parishes of Old and New Monkland, including the Burghs of Coatbridge and Airdrie. and Shettleston district of Cadder Parish) ; Gateside (serving the Parishes of Blantyre and Cambuslang and also the Burgh of Rutherglen) : Woodburn (serving the Burgh of Hamilton and the Parishes of Hamilton and Dalserf) ; and Knowetop (serving the joint Burgh of Motherwell and Wishaw and the Parishes of Dalziel and Cambusnethan). Certain children who, on account of special disability or inconvenient residence. are unable to attend any of the above mentioned schools, are sent for education to Eastpark Home, Maryhill, or to the Colony of Mercy for Epileptic Children, Bridge of Weir.

2. Mentally Invalid Children.

Each of the four schools named above has a separate department for the teaching of mentally invalid children. Certain children for whom attendance at the Committee's schools is not suitable are placed either in Birkwood Institution, Lesmahagow, in St. Charles' Institution, Carstairs, or in Rosewell Institution, Midlothian.

3. Backward Children.

In several of the larger primary schools special classes are conducted for dull or backward children.

4. Blind and Partially Blind Children.

St. Vincent's Institution, Tollcross, is the only centre for the education of blind children which comes under the jurisdiction of the Education Committee. It serves the needs of the Roman Catholic children in the educational area whilst Protestant blind children are sent for education to the Royal Blind Asylum, Edinburgh. At Drumpark and Knowetop Special Schools provision is made for the education of high myopes, that is, children who suffer from a severe degree of short-sight, and who cannot attend an ordinary school without grave peril to their vision.

5. Deaf and Deaf-Mute Children.

There are two centres within the Committee's educational area for the teaching of deaf or deaf-mute children, namely, Woodburn Special School, Hamilton, and St. Vincent's Institution, Tollcross. Children for whom attendance at either of these two schools is unsuitable are sent for education either to Donaldson's Hospital, Edinburgh, or to the Royal Edinburgh Deaf and Dumb Institution.

IX.

ARRANGEMENTS FOR PHYSICAL EDUCATION.

Throughout the whole educational area physical exercises are given to all children in attendance at school. In the case of the primary schools the exercises are given by the class teachers or by a visiting physical instructor in accordance with the instructions for physical training issued by the Scottish Education Department. Pupils in attendance at Secondary Schools and Students in Preliminary Training receive instruction from qualified physical instructors and each school is fitted with a fully equipped gymnasium. School games and sports enter much more largely into the regular school life than formerly and it is now the exception to find any of the larger schools, whether primary or secondary, which has not its football, cricket, hockey, tennis, or swimming club. The institution of inter-school sports does much to promote a healthy rivalry and these sports are now a regular feature in all urban districts. Whether as a result of the Boy Scouts and Girl Guides movement or because of a new-born urge to explore the " wide spaces," it has been observed that walking clubs, commonly known as " hiking," are being formed in many schools. This is probably one of the most beneficial, as well as the least expensive, of all outdoor recreations and there is practically no school which could not maintain such a club. One can scarcely realise what a great adventure it is for many children to proceed beyond the narrow bounds of their immediate streets or the confines of their village, and if there is the added thrill of a meal partaken in the woods or even by the wayside—it may be only a " piece " carried in the pocket—additional zest is given to the outing.

X.

ARRANGEMENTS FOR FEEDING OF CHILDREN.

The Committee's arrangements for the supplying of food at school may be summarised as follows :—

1. All children in attendance at the special schools for invalid children are provided with a forenoon snack of biscuit and milk and a two-course hot meal at mid-day. The meals are cooked in the premises and cost the children 3d. a day. Where the necessity of the parent justifies it, the meals may be given free.

2. The Education Committee provides food to all those children in attendance at school who are necessitous in terms of Section 6 of the Education (Scotland) Act, 1908. The number of meals provided during the year under review amounted to 62,414.

3. Many of the Secondary schools have a regular buffet attached to them where a hot mid-day meal may be obtained.

4. In many of the rural schools hot soup is provided at a nominal cost during the winter and spring months for those pupils who reside at a long distance from school.

XI.

ARRANGEMENTS FOR MEDICAL TREATMENT.

Briefly stated, the scheme of treatment for school children makes provision for (*a*) dental treatment ; (*b*) visual treatment ; (*c*) treatment of diseases of ear, nose, and throat ; (*d*) treatment of minor ailments of the skin, eyes, ears, nose, etc. Each of these branches of treatment is fully dealt with in subsequent sections of this Report.

In addition to the foregoing, a considerable number of children attended for treatment of deformities at one or other of the public Institutions in Glasgow, and especially at the Royal Hospital for Sick Children, Glasgow. During the course of the year under review sanction was given for the provision of orthopaedic appliances for 29 necessitous children at a cost of, approximately, £50.

TABLE A.—All Pupils examined at the Systematic Examination for the Year ending 31st July, 1930

SCHOOL MANAGEMENT AREAS.	SCHOLARS EXAMINED IN EACH GROUP. Infants (6 years). Boys.	Infants (6 years). Girls.	Age Group (9 years). Boys.	Age Group (9 years). Girls.	Seniors (12 years.) Boys.	Seniors (12 years.) Girls.	Higher Grade (16 years.) Boys.	Higher Grade (16 years.) Girls.	Selected Cases. Boys.	Selected Cases. Girls.	TOTAL.	*Conditions Notified.	Average Number of Scholars on Register
Avondale	42	39	44	50	45	37	....	....	53	44	354	121	849
Biggar	32	28	42	42	17	27	5	6	5	5	209	43	664
Blantyre	222	189	222	239	170	156	....	....	100	119	1417	864	3625
Bothwell	639	644	760	784	593	641	27	60	360	349	4857	2758	13068
Cadder	188	194	203	215	113	122	5	2	70	62	1174	470	3300
Cambuslang....	271	254	292	307	205	239	4	5	149	153	1879	1064	5136
Cambusnethan	302	283	400	373	311	275	27	25	171	160	2327	849	6258
Carluke	118	116	133	125	86	76	1	1	23	32	711	173	1943
Carnwath	57	66	41	75	41	54	....	....	10	17	361	76	1026
Dalserf	185	202	222	226	187	188	14	19	81	92	1416	632	3824
Dalziel	519	486	606	570	459	427	74	62	281	224	3708	1376	10468
Douglas	20	23	38	40	31	20	....	....	13	13	198	61	496
East Kilbride	37	37	49	41	27	30	....	....	18	16	255	110	679
Glassford	12	10	8	12	10	3	....	....	5	5	65	24	199
Hamilton	493	485	589	546	431	428	73	47	263	237	3592	1661	9753
Lanark	151	142	188	155	129	117	20	18	47	57	1024	243	2940
Lesmahagow	101	112	186	110	119	80	6	3	39	49	745	272	2003
New Monkland	424	453	453	416	476	454	34	21	219	238	3188	1387	8237
Old Monkland	687	689	790	762	623	623	44	40	426	445	5129	2710	13663
Rutherglen	274	276	324	332	237	243	26	11	140	147	2010	992	5362
Shotts	265	246	295	306	210	228	....	....	103	126	1779	687	4883
Southern	11	20	25	17	12	11	....	....	10	3	112	23	332
Stonehouse	45	41	50	49	28	21	....	....	20	18	272	99	686
TOTALS	5095	5035	5900	5792	4560	4503	360	320	2606	2611	36782	16695	99394

* Defective Teeth not included.

TABLE B.—SHOWING THE REMEDIAL MEASURES INSTITUTED

SCHOOL MANAGEMENT AREAS.	Clothing and Footgear. Notified.	Clothing and Footgear. Remedied.	Cleanliness. Head. Nits & Dirty. Notified.	Cleanliness. Head. Nits & Dirty. Remedied.	Cleanliness. Head. Lice. Notified.	Cleanliness. Head. Lice. Remedied.	Cleanliness. Body. Nits & Dirty. Notified.	Cleanliness. Body. Nits & Dirty. Remedied.	Cleanliness. Body. Lice. Notified.	Cleanliness. Body. Lice. Remedied.	Condition of Skin. Impetigo. Notified.	Condition of Skin. Impetigo. Remedied.	Condition of Skin. Ringworm. Notified.	Condition of Skin. Ringworm. Remedied.	Condition of Skin. Scabies. Notified.	Condition of Skin. Scabies. Remedied.	Condition of Skin. Other Diseases. Notified.	Condition of Skin. Other Diseases. Remedied.	Nutrition Notified.	Nutrition Remedied.	Nose. Nasal Obstruction. Notified.	Nose. Nasal Obstruction. Remedied.	Throat. Tonsils. Notified.	Throat. Tonsils. Received Medical Attention.	Throat. Adenoids. Notified.	Throat. Adenoids. Remedied.	Lymphatic Glands. Notified.	Lymphatic Glands. Remedied.	External Eye Disease. Notified.	External Eye Disease. Remedied.	Squint. Notified.	Squint. Remedied.	Vision. Notified.	Vision. Received Medical Attention.	Ear Diseases, Wax, &c. Notified.	Ear Diseases, Wax, &c. Remedied.	Hearing. Notified.	Hearing. Remedied.	Heart and Circulation. Notified.	Heart and Circulation. Remedied.	Lungs. Notified.	Lungs. Remedied.	Nervous System. Notified.	Nervous System. Remedied.	Tuberculosis (Non-Pulmonary). Notified.	Tuberculosis (Non-Pulmonary). Remedied.	Other Conditions. Notified.	Other Conditions. Remedied.	Total Number of Children Notified.	Number of Children Receiving Attention.	Total Number of Conditions Notified.	Total Conditions Remedied.
Avondale	..	..	22	11	20	9	1	....	7	5	2	1	....	....	....	...	....	....	....	....	....	....	14	7	8	3	1	...	3	2	5	3	25	17	3	1		.	2		6	4		....	..		2	1	84	47	121	64
Biggar	1	..	4	2	3	1	1	....	5	3	..	....	1	1	..	....	..	...	..	....	1	....	5	1	....	...	...	....	1	1	....	...	12	11	6	3	..		3	..	....	.		....	...		.		38	21	43	23
Blantyre	47	22	91	34	65	22	84	48	33	14	76	54	1	....	4	4	41	33	....	....	7	5	81	26	35	9	4	3	73	46	43	27	83	48	21	13	2	2	30	9	4	2	4	....	...	..	35	16	516	291	864	437
Bothwell	105	80	439	286	147	91	181	121	98	69	142	110	1	1	19	19	39	24	2	....	17	11	347	128	154	53	19	9	216	149	137	86	500	302	37	24	6	4	52	31	12	9	7	3	11	4	70	37	1816	1120	2758	1651
Cadder	20	8	48	20	29	14	16	6	15	9	29	20	....	..	3	3	25	21	7	4	4	1	63	24	22	7	6	3	28	17	7	2	70	42	9	6	.	.	34	11	6	6	5	1	1	.	20	9	336	181	470	234
Cambuslang	29	21	168	110	62	43	66	52	38	27	37	29	....	....	1	...	24	18	2	2	9	5	150	71	66	27	6	2	86	62	47	29	196	121	30	18	4	1	20	15	7	4	1	....	2	1	13	10	701	446	1064	668
Cambusnethan	2	1	88	23	55	19	12	3	38	14	7	3	1	....	2	....	60	29	....	....	12	6	58	22	22	10	1	1	70	39	41	30	293	179	44	20	14	3	9	1	9	2	3	....	....	.	8	3	621	327	849	408
Carluke	4	3	21	10	12	4	7	7	14	4	....	....	....	..	....	....	1	1	....	....	....	....	21	12	10	7	....	...	1	1	16	15	52	40	...	...	1	..	3	2	..	.	1	1	...	.	9	6	131	89	173	113
Carnwath	....	....	5	1	3	....	1	1	2	....	....	....	..	..	....	....	....	..	....	....	....	....	18	3	5	1	1	1	2	1	6	5	24	17	6	2				.	3	1	..	....	...	.	.	..	65	31	76	33
Dalserf	11	6	66	27	57	20	17	4	30	10	30	23	3	2	3	1	13	9	....	....	6	3	66	13	25	2	3	1	32	21	33	12	172	98	18	10	3	2	10	.	13	7	1	....	....		20	5	425	217	632	276
Dalziel	6	2	90	31	58	18	21	5	63	14	5	3	1	....	1	....	138	75	....	....	16	4	73	20	44	12	5	2	158	87	73	43	512	335	84	34	4	2	11	1	5	....	1	1	...	.	7	1	1058	594	1376	690
Douglas	...	....	7	4	6	4	....	....	..	....	3	2	...	....	3	3	2	1	....	....	2	1	10	5	1	1	..	....	2	1	1	.	17	13	2	1	.	.	.		...			..	....		5	3	45	33	61	39
East Kilbride	....	....	7	4	7	4	4	3	9	7	3	1	....	....	4	....	3	2	....	....	1	1	12	7	5	1	2	1	5	4	8	6	28	20	4	1			5	.	3	3		....	....		...	..	77	47	110	65
Glassford	....	....	2	....	2	....	1	....	4	....	1	....	....	....	....	....	....	....	....	....	....	....	5	....	2	....	...	....	1	...	....	....	5	2	...	.			...		1	..		...	...		...	...	15	2	24	2
Hamilton	3	2	158	75	149	70	39	13	90	40	95	51	6	2	12	7	57	34	....	....	21	7	153	44	75	25	7	4	129	79	94	60	429	248	61	19	3	1	19		31	15	2	...	2		26	4	1155	577	1661	800
Lanark	3	2	25	12	15	11	2	1	7	3	4	2	1	1	....	....	2	....	....	....	....	....	29	15	11	5	5	4	6	3	12	11	109	84	7	3	1		1		2	2	.	...	1	1		.	197	137	243	160
Lesmahagow	....	....	29	8	26	8	2	....	8	1	4	3	1	..	14	8	1	1	....	....	4	2	49	15	19	6	1	....	22	13	14	10	54	34	8	5	1		4		3	1	1	...	1	.	6	3	190	92	272	118
New Monkland	65	21	145	55	103	35	104	57	56	28	68	40	1	1	3	3	77	56	7	2	15	3	91	20	14	1	11	7	89	66	67	32	260	161	59	36	3	1	61	22	19	9	8	....	1	2	57	9	988	582	1387	667
Old Monkland	145	71	278	137	169	86	184	92	155	83	161	111	2	2	21	16	92	58	32	28	19	5	186	62	61	29	23	16	159	95	146	90	544	393	63	25	4	4	130	57	26	18	7	1	9	5	94	40	1822	1157	2710	1524
Rutherglen	21	11	181	94	58	19	56	26	37	16	30	21	....	....	2	2	25	16	....	....	8	3	114	35	57	18	9	3	55	36	47	25	228	124	18	14	.		24	10	3	2	3	.	3		13	5	663	352	992	480
Shotts	16	6	85	34	43	16	27	6	19	7	12	11	2	....	....	....	14	6	....	....	8	5	99	39	41	18	2	2	44	19	46	32	194	123	9	4		.	7	4	1	1	1	....	1	1	13	6	500	266	687	343
Southern	....	....	....	..	....	....	....	....	.	....	....	....	...	....	....	....	....	....	....	....	1	...	5	....	1	...	....	..	1	1	.	....	8	6	7	2							.	....			.	.	23	9	23	9
Stonehouse	.	....	3	3	3	3	1	1		....	....	..	..	...	....	....	8	4	....	....	3	3	16	10	10	7	...	..	8	7	4	3	27	18	8	8			2		3	2		....	.		3	2	77	56	99	71
TOTAL	478	256	1962	981	1092	497	872	446	728	354	709	485	21	10	92	66	622	388	50	36	154	65	1665	579	688	242	106	59	1191	750	847	521	3842	2436	504	249	46	20	427	163	160	91	45	7	38	14	401	160	11546	6674	16695	8875

REPORT ON VISUAL TREATMENT.

The following Reports for the year ending 31st July, 1930, have been received from the Committee's Ophthalmic Surgeons :—

(DR. ERNEST THOMSON.)

CENTRES :

Airdrie, Cadder, and Coatbridge.

The past year in the above named centres has been somewhat devoid of special interest outside of the usual routine. The Drumpark Special School, about which some remarks will be made presently, must be excepted from this statement.

The numbers of children seen at the Airdrie and Coatbridge Clinics continue to increase, the total attendances having gone up from about 1,500 in 1927-28, to about 1,800 in the year now under consideration. There can be no doubt that the services of the Committee's staff are appreciated. Refraction errors are apt to run in families and it is quite noticeable that if one child in a family is treated that child's younger brothers and sisters are brought for treatment in due course. What applies to refraction errors applies to other conditions also. Indeed, a good deal might be made of the study of families, but, unfortunately, the school doctor's " job " is unsatisfactory from the standpoint of following up family histories. He gets to know the children as children and then loses all touch with them as adults. It is otherwise in private practice. In the present state of medical affairs this loss of touch is inevitable, and one wonders whether, in this particular regard, a State Medical Service—whatever objections there may be to it otherwise—would enable the observations made by the school medical staff to be of service to science and the State in later years. Will it ever be possible to have a health record, complete in all details, from the cradle to the grave ? It is a dream of Utopia, and doubtless there would be objections to the reality.

There is an aspect of the Committee's medical activities in the ophthalmic department upon which comment may well be made, and that is the liaison which has gradually grown up between the work of the school ophthalmic surgeons and that of the staff of the various special hospitals. The mere fact that some of the Committee's specialists are members of the staff of the Glasgow Eye Infirmary means a great deal to the school service, and the Committee, which in itself has no means through its own staff of carrying out operative and certain other forms of treatment and diagnostic investigation, has come to rely to a considerable extent on the willingly given assistance of the staffs of the various hospitals. To a limited extent the benefit may be mutual since cases of scientific interest and clinical importance are sometimes referred to these teaching institutions, cases which might otherwise never reach them and which might, indeed, be lost sight of. Yet, taken all round, the indebtedness is greatest on the side of the Committee since, but for the goodwill of the hospitals, the work of the school ophthalmic staff would in many cases prove abortive. It may be well to illustrate this statement by an example. Squint is a deformity which sometimes becomes cured of itself, sometimes by the correction of the refraction and sometimes only by operative treatment. If, in a given case, the school surgeon says to the parent " you must go and get this attended to at one of the special hospitals " the chances are that nothing will be done. On the other hand if the school surgeon says " we will give you an introduction to one of the surgeons of such and such hospital with precise instructions as to the day and hour " that offer is usually gratefully accepted. This is an example of what is meant by the " liaison " referred to.

Now a few words about Drumpark Special School, Coatbridge. This school receives both physically and mentally invalid children, and eye cases naturally occur in both departments. From the nature of the school—for invalid children—the eye cases are often of great interest and importance. There is, for instance, the myope class, into which not only high myopes (that is, very short-sighted children whose sight is in peril) but also other children with very defective sight are admitted. Such children are quite unsuited to the ordinary school and usually get on very badly there. Their visual defect precludes them from the absorption of knowledge by the eye and they tend to fall behind in their education ; still more important, the visual defect is apt to increase under the strain. Nothing is more remarkable than the improvement which may occur at Drumpark. A defective sighted, backward and hopelessly nervous child can be observed within a comparatively short time to become self-reliant, fearless and bright under the influence of the sympathetic teaching and management at this school. It is unfortunately the case that the actual progress of the ocular defect may not be arrested so often as one could wish, but the child has been enabled to learn *in spite of* the defect. The general health has been improved and the child has been put in a position to become a more useful citizen than he or she would ever become as a pupil at an ordinary school, where individual teaching and attention are unobtainable.

For details of the number of cases examined, and their nature, reference may be made to the accompanying statistical Tables.

(DR. JOHN A. MORTIMER).

CENTRES :

Blantyre, Carluke, East Kilbride, Lanark, Larkhall, Shotts, Strathaven, Uddingston, Wishaw.

That there has been a continued and steady increase in the response to the benefits provided by the Education Committee for the treatment of eye defects and diseases in school children is shown by the following figures in the summary of work done throughout the past session. During that time in the above areas, 1060 children were examined and treated and 1,530 were revisited. The preponderance of girls over boys requiring ophthalmic treatment is as manifest as ever, there being 178 more girls than boys.

Though the work of the school ophthalmic surgeon is, in large measure, routine, consisting in the correction of errors of refraction, yet it allows of the study of children in the mass, and one is thus able to accumulate new information on the earlier manifestations of diseases and to gather new knowledge on already well known conditions.

Apart from several interesting cases of intraocular disease arising during the past session, the surveying of this summary and the comparison with former years bring out the following points of importance.

(1) *The Correction of Refractive Errors.*—The response to treatment by spectacles is exceedingly satisfactory where the defective vision is wholly due to errors of refraction. School discipline plays a not inconsiderable part in the wearing of, and attention to, children's spectacles, and the results of different schools vary very much according as the teachers take a keen interest in the vision of their scholars. A change of headmaster may make a great difference in the matter, either for weal or for woe.

(2) *Interest of Parents.*—Parental interest in their children's eyesight is steadily on the upgrade, and is becoming yearly more pronounced. This is very evident when their children suffer from shortsight or squint. The desire for operative measures is noticed in those cases where the correction of the refractive error is not sufficient to cure the defect and there is usually a ready response when operation is advised. In consequence, the writer has during the past year operated on a considerable number of children for squint and cataract in the Glasgow Eye Infirmary. Should this desire for operation on the part of parents increase (which desire is very noticeable where the children are girl squinters) there is not the available accommodation in the Infirmary as even now only a limited number of picked cases are admitted in rotation from a waiting list.

(3) *Myope Classes.*—It is well to record the very satisfactory results in the preservation of vision in those scholars attending the myope classes. It is to be noted that the progress of the myopia varies from "no change" to 50% less than when they attended an ordinary school. This beneficial result certainly gives these children a better start off in life and inculcates into them a better knowledge as to how to look after their vision in after life, and to choose their environment and work.

With the steady advance in public medical services, one looks forward to the time when defective vision and blindness due to the diseases of childhood, will be very greatly diminished by the increased attention which is being given to the welfare of infants, the medical supervision of school children, the provision of special schools and the guidance in the choice of industry, and where the medical history from birth to adult life will be available for the observation and treatment of their conditions.

(DR. JAMES R. WATSON.)

CENTRE : Hamilton.

The work at the Hamilton Clinic during the past year has been on the whole very satisfactory. It has proceeded on its usual lines, and there have been few cases with any remarkable features. The general improvement in the vision of the children as revealed at the revisits has been very marked in most cases, and this is so even in the astigmatic cases of high degree. The myopic cases, too, have been highly satisfactory. The parents are gradually shewing a livelier appreciation of what is being done, and one seldom hears a derogatory remark now.

(DR. JAMES A. WILSON).

CENTRE : Motherwell.

In quite a large percentage of children the eye departs from the normal and varies in size and curvature. These departures are mainly due to heredity. Rays of light reaching a normal eye from an object twenty feet away, enter and fall sharply-focussed on the retina (or nerve) at the back of the eye and do so without any effort on the part of the eye, or neuro-optical apparatus. When the eyeball is too long, the image of an object twenty feet away falls in front of the retina, (myopia) ; when the eyeball is too short the image falls behind the retina, (hypermetropia), and when the curvature is faulty the image is distorted (astigmatism). These conditions give rise to defective vision and form a hindrance to the education of the scholar.

The placing of a biconcave lens in front of the eye throws the image backwards, a biconvex lens brings it forwards, and a lens curved in one direction only equalises faulty curvature. These measures usually restore the vision. It is the business of the oculist to diagnose the existence of these conditions, to estimate their degree, and to apply the correcting lenses.

Impressions of images formed on the retina are transmtted by the optic nerves from the eyes to the visual centre at the back of the brain. The eyeball is merely a receiving organ, a camera ; sight is a function of the brain. If the visual centre in the brain is damaged or destroyed—as from a gunshot injury or by disease—vision is impaired or lost. though the eyes and the optic nerves are uninjured and free from disease or defect. This highly specialised function of the visual centre in the brain varies in efficiency even in ordinary general health, and we get defective vision, and even blindness, that is central in origin and functional or temporary in nature.

Accommodation.—The range of the function of focussing for reading and sewing is greatest at the age of ten years, but from this age onwards it diminishes till, at 45 years, the receding near-point of vision passes beyond the usual reading distance, when the book has to be held further and further away. This large range of accommodation in young people compensates for the fault of the small eye and so hides hypermetropia.

Rays of light coming from an object one foot away enter the eye as diverging rays and require more refracting or bending to bring them to a focus on the retina. Inside the eyeball there is a biconvex lens, that by muscular effort can have its convexity, or focussing power, temporarily increased and so adapt the eye for seeing near objects.

Atropine applied to the eye suspends this function temporarily and reveals the existence of defect. Only by the use of this alkaloid can these defects of the eyeball be properly estimated in children.

Human vision is binocular and sets of muscles, regulated by the brain, move the eyeballs in unison, and also cause them to converge equally when we read. Defects in this function, slight or severe (squint), are common and require attention.

The treatment of defective vision and defective function is not merely a problem in optics, it is also a problem in physiology, in health and disease.

In the ten years 1919-1929, 3,386 scholars in Motherwell who had been found by the school medical officers to have defective vision were examined at the Motherwell Clinic, and of these 56·8 per cent. were girls.

There were 4·6 cases of Hypermetropia (H. & H.A.) to one case of myopia, (M. & M.A.). Of those with Hypermetropia, 55 per cent. were girls, and of those with Myopia 56 per cent. were girls. The corresponding figures given in 1926—drawn from all the treatment centres—were " nearly four cases " of hypermetropia to one of myopia, and of those with hypermetropia, 55 per cent. were girls, and of those with myopia, 61 per cent. were girls.

Squint.—In the first five years 1919-1924, there were 279 cases of squint (convergent), or 20 per cent., and in the second five years, 1924-29, there were 433 cases of squint, or 21·5 per cent.

Twins.—In these ten years there were, among the cases, five pairs of twins who had defective vision.

1. Two girls each with high degrees of hypermetropia.
2. Two boys each with high degrees of hypermetropia.
3. Two boys each with moderate degrees of hypermetropia.
4. Two boys each with moderate degrees of hypermetropia.
5. Two boys each with moderate degrees of myopia.

When twins have defective vision the cause of the defect seems to be alike in nature and degree.

The number of cases recalled this session for re-examination amounted to 662. The glasses were compared with the prescription and in nearly every case were found to be correct. A few broken lenses required to be replaced, and some frames required adjusting. These and other defects were attended to. Among the squinters, 59 per cent. were cured or improved.

Among the new cases there were five with high degrees of myopia requiring special consideration, and six with functional visual defect.

(DR. H. SOMERVILLE MARTYN.)

CENTRES :

Abington, Baillieston, Bellshill, Biggar, Cambuslang, Carnwath, Lesmahagow, and Rutherglen.

The total number of new cases examined during the year was 677. Glasses were prescribed for 571 children of whom 256 were boys and 315 girls. Abnormalities other than errors of refraction amounted to 367, of which number 177 were boys and 190 girls. Squint is by far the most prevalent abnormality, numbering 186 of whom 102 were boys and 84 girls.

Apart from squint, cases of abnormality amounting to 181 were noted, of whom 75 were boys and 106 girls. These, where treatment was required, were advised to attend the local school clinic (where available),recommended to see their family doctor, or taken under the writer's own care at the Glasgow Eye Infirmary, where facilities for full investigation (X-Ray, Fields of Vision, Wassermann reaction of the blood, etc.,) or operation were available.

The total number of re-visits was 749. The prescriptions for glasses were well executed and the frames, with few exceptions, well fitted. The disappearance of squint when suitable glasses are constantly worn was a frequent observation, as also was the distinct improvement in visual acuity in cases other than squint, and where free from disease. The removal by operation of the unsightly deformity of squint in the cases in which the wearing of glasses failed to effect a cure was a no less welcome feature of the re-visits.

An unpleasant feature was the number of cases in which the glasses are apparently worn during school hours only and in a few cases not even then. The co-operation of parents and teachers with the ophthalmic surgeon is imperative and cannot be too frequently insisted upon: otherwise time and money are simply thrown away. When glasses are prescribed for children they should be "put on with their clothes in the morning and not removed (save for the purpose of cleaning) till their clothes are taken off at night." The average parent is alive to this but the child of the inattentive or ignorant parent is too apt, notwithstanding definite instruction to the contrary, to be utterly careless and indifferent. Here it is that the co-operation of the teacher is of the utmost value.

To the Directors of the Glasgow Eye Infirmary is due the thanks of the Committee for facilities for supplementary treatment not available at the school clinics and the writer desires to acknowledge the invaluable assistance given him by the school nurse throughout the year, and in the preparation of the details of this report.

VISUAL TREATMENT

TABLE C.—Showing *(a)* Total Number of Cases Examined; *(b)* Number Revisited; *(c)* Total Attendances at Clinic; *(d)* Number Treated by Glasses; *(e)* Number Treated Otherwise or Advised; *(f)* Number Uncompleted and not Requiring Treatment. Year ending 31st July, 1930.

TREATMENT CENTRE.	Number of Children Examined.	Number of Children Revisited.	Total Attendances.	Number for whom Spectacles were prescribed.	Number Treated otherwise or Advised.	Cases uncompleted and Cases not requiring Treatment.
Dr. Ernest Thomson.						
Airdrie	290	580	870	252	34	4
Cadder ... ... (Bishopbriggs and Chryston)	53	96	149	50	2	1
Coatbridge	376	598	974	327	49	...
Dr. John A. Mortimer.						
Blantyre	86	215	301	70	16	...
Carluke	82	103	185	70	12	...
East Kilbride	29	13	42	25	4	...
Lanark	180	144	324	154	26	...
Larkhall	136	180	316	120	16	...
Shotts	160	257	417	137	23	...
Strathaven	27	40	67	22	5	...
Uddingston	142	211	353	129	13	...
Wishaw	218	367	585	189	29	...
Dr. H. Somerville Martyn.						
Abington	6	3	9	5	1	...
Baillieston	129	123	252	114	11	4
Bellshill	209	187	396	173	18	18
Biggar	10	13	23	9	1	...
Cambuslang	155	196	351	138	10	7
Carnwath	20	24	44	16	4	...
Lesmahagow	41	58	99	29	10	2
Rutherglen	107	145	252	86	9	12
Dr. James A. Wilson.						
Motherwell	424	662	1086	337	27	60
Dr. James R. Watson.						
Hamilton	285	477	762	272	11	2
	3165	4692	7857	2724	331	110

VISUAL TREATMENT

TABLE D.

Table showing Conditions, other than Refraction Errors, whether Treated or Advised

CLINIC.	Squint (Convergent).		Squint (Divergent).		Corneal Opacity.		Blepharitis and Conjunctivitis.		Phlyctenular Conjunctivitis.		Cataract.		Nystagmus.		Choroido-Retinal Changes (Myopic).		Do. other than Myopic.		Coloboma of Optic Nerve.		Keratitis.		Congenital Dislocation of Lenses.		Hordeolum.		Optic Atrophy.		Ptosis.		Pseudo Neuritis.		Trachoma		Sequelae of Iritis.		Vitreous Opacities.		Coloboma of Iris and Choroid.		Leucoma Adherens.		Detachment of Retina.		Squint (Alternating).		Pupillary Memb.		Squint (Vertical).	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
Dr. Ernest Thomson.																																																		
Airdrie	34	33	...	1	2	5	1	...	1	...	...	1	2	1	4	2	...	...	...	...	...	...	...	...	2	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	4	...	...	...	...
Cadder ... ... (Bishopbriggs and Chryston)	5	3	...	3	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Coatbridge	39	45	2	1	6	9	2	3	2	2	1	...	6	2	2	2	1	1	...	...	...	...	...	...	...	...	4	1	1	...	...	...	...	...	...	1	...	...	...	...	2	...	...	...	3	7	1	...	...	...
Dr. John A. Mortimer.																																																		
Blantyre	14	12	...	...	1	7	...	2	...	...	...	2	...	1	...	...	...	1	...	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...
Carluke	14	6	1	...	...	3	1	2	...	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	2	...	...	...	...
East Kilbride	4	4	1	...	...	...	...	...	...	...	...	...	1	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...
Lanark	13	12	...	2	2	7	...	1	...	1	...	...	1	1	...	...	1	2	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	2	...	2	...	1	...	...	1	...	...	...	...	...	...	...	...	...
Larkhall	8	16	...	...	2	6	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Shotts	21	17	2	1	1	5	1	1	...	...	...	1	...	...	...	...	1	1	...	...	1	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	2	...	...	...	...
Strathaven	2	4	...	...	2	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Uddingston	16	15	...	3	...	3	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wishaw	25	17	...	...	4	7	1	5	1	1	...	3	...	1	...	...	2	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Dr. H. Somerville Martyn.																																																		
Abington	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Baillieston	18	15	2	2	2	8	...	5	...	...	2	2	2	...	...	2	1	...	...	...	1	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	2	2	1	2	...	...
Bellshill	32	17	3	...	9	9	4	8	...	...	1	1	3	1	1	2	...	5	...	...	...	...	...	...	...	...	1	...	...	...	2	2	...	...	1	1	...	2	...	...	...	...	...	...	...	2	2	3	...	...
Biggar	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cambuslang	20	13	1	1	2	3	3	5	...	...	2	1	1	1	...	...	1	3	...	...	1	1	...	...	...	...	1	1	...	...	2	1	...	...	2	...	...	...	...	...	...	...	...	...	...	1	1	4	...	...
Carnwath	6	5	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lesmahagow	3	2	...	...	1	2	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rutherglen	15	22	...	...	5	8	4	6	1	...	4	1	...	...	...	...	...	1	...	...	1	...	...	...	1	...	1	1	...	...	...	...	...	...	...	2	...	...	...	1	...	...	...	...	...	...	1	5	...	...
Dr. James A. Wilson.																																																		
Motherwell	35	48	1	8	4	6	3	4	...	...	2	2	3	1	...	...	2	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	2	...	...	...	...	...	1	...	...	...	1
Dr. James R. Watson.																																																		
Hamilton	35	36	...	...	4	7	2	7	...	...	...	1	2	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...
	359	343	13	23	48	96	24	51	5	5	13	18	22	11	7	10	10	16	...	2	6	3	1	...	3	2	12	4	5	1	5	3	...	2	5	8	1	4	3	3	3	1	...	2	10	24	7	14	...	1

VISUAL TREATMENT

TABLE E.—Showing the Nature of the Refraction Error in those Cases treated by Spectacles, and the Number of Cases Examined.

CLINIC.	1 Hypermetropia.				2 Hypermetropic Astigmatism (Simple and Compound).				3 Myopia.				4 Myopic Astigmatism (Simple and Compound).				5 Mixed Astigmatism.				6 Eyes not Requiring Correction or too Defective for Correction.				7 Cases n t Completed.				TOTAL.	
	Boys.		Girls.		Boys.		Girls.		Boys.		Girls.		Boys.		Girls.		Boys.		Girls.		Boys.		Girls.		Boys.		Girls.		Boys.	Girls.
	R.	L.	R.	L.	R.	L.	R.	L.	R.	L.	R.	L.	R.	L.	R.	L.	R.	L.	R.	L.	R.	L.	R.	L.	R.	L.	R.	L.		
Dr. ERNEST THOMSON.																														
Airdrie	45	43	60	59	35	40	38	42	11	13	10	11	13	10	16	13	12	12	16	11	18	16	12	16	1	1	3	3	135	155
Cadder ... ... (Bishopbriggs and Chryston)	14	15	7	8	6	5	10	11	1	1	1	1	...	...	2	2	4	4	5	4	...	...	2	1	...	...	1	1	25	28
Coatbridge	65	66	70	65	39	45	56	59	18	19	13	13	13	12	15	16	26	15	16	20	17	21	28	25	...	...	...	...	178	198
Total	124	124	137	132	80	90	104	112	30	33	24	25	26	22	33	31	42	31	37	35	35	37	42	42	1	1	4	4	338	381
Dr. JOHN A. MORTIMER.																														
Blantyre	9	12	8	9	17	14	14	18	2	2	2	3	4	5	9	9	1	1	4	4	5	4	11	5	...	...	...	...	38	48
Carluke	20	23	9	9	12	9	13	14	1	1	5	5	1	1	3	3	2	2	5	3	4	4	7	8	...	...	...	...	40	42
East Kilbride	5	5	3	4	2	2	9	9	2	2	...	...	2	2	1	1	...	...	1	1	1	1	3	2	...	...	...	...	12	17
Lanark	18	15	20	21	16	20	42	44	6	6	11	12	9	9	13	13	9	7	11	7	8	9	17	17	...	...	...	...	66	114
Larkhall	14	6	16	18	23	32	42	42	...	1	4	4	5	1	9	8	3	3	6	5	6	8	8	8	...	...	...	...	51	85
Shotts	26	19	26	25	25	30	31	33	...	2	4	4	4	6	10	11	5	5	6	4	10	8	13	13	...	...	...	...	70	90
Strathaven	2	1	5	5	4	4	6	6	2	2	...	...	1	1	2	2	...	1	...	...	5	5	...	...	...	...	...	...	14	13
Uddingston	17	17	15	15	21	21	38	40	3	3	5	5	4	6	14	14	6	6	6	6	5	3	8	6	...	...	...	...	56	86
Wishaw	31	27	31	22	38	42	54	57	6	5	7	7	3	4	7	9	7	8	9	9	9	8	16	20	...	...	...	...	94	124
Total	142	125	133	128	158	174	249	263	22	24	38	40	33	35	68	70	33	33	48	39	53	50	83	79	...	...	...	...	441	619
Dr. H. SOMERVILLE MARTYN.																														
Abington	...	...	1	1	1	2	1	1	...	1	...	...	1	...	...	...	1	...	...	...	...	...	1	1	...	...	...	...	3	3
Baillieston	14	8	14	5	20	26	23	28	2	2	6	3	8	7	15	21	5	6	7	8	8	8	3	3	2	2	2	2	59	70
Bellshill	30	27	19	17	30	35	38	46	7	3	5	5	9	8	10	8	10	13	15	11	10	10	8	8	7	7	11	11	103	106
Biggar	1	2	2	1	1	...	1	3	...	...	1	1	...	...	1	...	1	1	1	1	1	1	...	...	...	...	...	...	4	6
Cambuslang	17	6	18	11	27	37	40	47	3	4	...	2	5	3	11	8	3	5	14	15	5	5	5	5	4	4	3	3	64	91
Carnwath	3	3	4	...	1	1	3	6	1	...	...	...	1	3	2	2	1	...	...	1	1	1	3	3	...	...	...	...	8	12
Lesmahagow	5	6	5	1	9	10	1	4	1	1	...	1	1	...	5	5	1	...	1	1	5	5	5	5	...	...	2	2	22	19
Rutherglen	8	9	5	12	12	13	25	22	4	4	4	2	5	3	6	6	7	7	10	8	6	6	3	3	3	3	9	9	45	62
Total	78	61	68	48	101	124	132	157	18	15	16	14	30	24	50	50	29	32	48	45	36	36	28	28	16	16	27	27	308	369
Dr. JAMES A. WILSON. Motherwell	47	59	70	71	81	71	93	94	14	12	20	16	13	13	15	16	5	5	5	6	29	29	26	26	3	3	3	3	192	232
Dr. JAMES R. WATSON. Hamilton	34	29	28	20	68	74	63	72	17	19	13	13	14	14	19	17	9	9	7	10	6	3	5	3	2	2	...	...	150	135

NOTE.—All the cases examined are included in this Table, whether Spectacles were prescribed or not. If no Spectacles were prescribed, the eyes are recorded in one or other of the Columns 6 or .

REPORT ON DENTAL TREATMENT.

The scheme of school dentistry continues to enjoy a very large measure of popularity throughout the whole County as the statistics for the year clearly indicate. The high figure of 19,852 children actually treated this year is a satisfactory one and falls only slightly short of the number treated last year. This decrease is due almost entirely to the fact that for twenty working days during the Spring of this year the dental nurses were wholly engaged in the special milk investigation and, consequently, the dental surgeons could not overtake the usual number of patients during that period. Again, a widespread epidemic of measles occurred in the early months of the year which affected adversely the attendance of children at the dental clinics. It is interesting to note that during the past six years (August, 1924-July, 1930) the total number of children who have received treatment at the school dental clinics amounts to 116,754, an average of 19,459 per annum.

As in former years, all school children from 5 to 12 years, both years inclusive, were examined by the dental surgeons, pupils above 12 years, including the 16 years old scholars and students in preliminary training, being examined by the school medical officers. Altogether, 74,818 pupils were dentally inspected, and of these 52,611 were found to stand in need of treatment, that is, a percentage of 70·3. This percentage figure is still high but as the examination is very thorough no dental defects, however slight, are ignored, if, in the dentist's opinion, a remedy can be effected. A reference to the accompanying statistical Table again shows how evenly dental defects are divided between the sexes, and also the close approximation in the numbers treated. Thus, the numbers notified for treatment were :—Boys, 26,488; Girls, 26,123; whilst the numbers treated were :—Boys, 9,899 ; Girls, 9,953.

The condition of the teeth of the 16 years old scholars is not so satisfactory as last year, the percentage of cases requiring treatment being 44·7 compared with the previous year's percentage of 36·2.

The response given by the scholars to the offer of treatment varies considerably in different districts, and even in schools in the same district. As has been found in former years the best returns were obtained from schools in the outlying parts of the County where the appreciation of school dentistry is very evident. Several of these schools gave the full 100 per cent. of treatment, that is, every child notified as requiring treatment came under the care of the school dentist. It is well to place on record the schools from which more or less satisfactory results were obtained. Thus :—

100 per cent. of treatment.—Douglas West P., Daer and Powtrail P., Roberton P., Summit P., Whiteeleugh P., Wilsontown P., Woolfords P., Barnock P.

90-100 *per cent.*—Douglas P., Stableston P., Crawford P., Braidwood P., Carnwath P.

80-90 *per cent.*—Forrestfield P., Auchentibber P.. Glassford P., Auchenheath P., Bent P., Blackwood P., Hawksland P., Walston P., Wiston P., Dolphinton P., Dunsyre P., Forth P., Tarbrax P., Jackton P., Kirkfieldbank P., Smyllum R.C.

70-80 *per cent.*—Meikle Drumgray R.C., Dalserf P., Woodburn Special, Chapelton P., Blackwood R.C., Coalburn P.. Lesmahagow H.G., Waterside P., Biggar H.G., Leadhills P., Kilncadzow P., Law P.. Auchengray P., Braehead P., Haywood P., Carstairs-Junction P., Douglas Water P., Underbank P., Strathaven R.C.

60-70 *per cent.*—Auchinloch P., Baillieston P., Mount Vernon P.. Annathill P., Glengowan P., Riggend P., St. Augustine's R.C.. West Coats H.G., Chapelhall P., Calder St. P. (Blantyre). Low Blantyre P., Netherburn P., Swinhill P., Dykehead P., Symington P.. Carluke H.G., Carluke R.C., East Kilbride P., Carmunnock P., Carstairs P.. Pettinain P.

50-60 *per cent.*—Budhill P., Auchinairn P., Bridgend P.. Calderbank P., Greengairs P., Longriggend P., Moffat P., Longriggend R.C.. Dundyvan P., St. Patrick's R.C. (Coatbridge), Eastfield P., Cambuslang P., Northrigg P., Sandford P., Stonehouse P., Shawsburn P., Beechfield P., Quarter P., Upper Duneaton P., Bellfield P., Covington P., Libberton P., Abington P., Crawfordjohn P., Yieldshields P.. Newbigging P., Lanark Grammar, Nemphlar P., New Lanark P., Gilmourton P., Strathaven Academy, Stane P., Cleland R.C., Allanton P.

In regard to the response given by purely urban districts the following percentages of treatment were obtained :—Coatbridge 57 per cent., Rutherglen 40 per cent., Airdrie 36 per cent.. Motherwell 34 per cent., Hamilton 32 per cent. These percentages show an appreciable increase on last year's figures, especially in the case of Rutherglen where the corresponding percentage last year was 28.

The following are extracts from the Reports submitted by the dental surgeons on last year's work :—

Mr. Beattie (Avondale, Biggar, Carluke, Carnwath, Dalserf (rural), Douglas, East Kilbride, Glassford, Lanark, Lesmahagow, and Southern districts) remarks on the excellent attendance made by the pupils at the dental clinics and on the smoothness and regularity with which the scheme worked. In many instances where illness had prevented a patient from coming to the clinic on the day appointed the child, on recovering from his illness, had come voluntarily to the clinic to arrange for an appointment being made. Parental interest in the scheme is yearly increasing, but lack of means frequently prevents the carrying out of certain necessary after care. Taking a broad view of all the districts, Mr. Beattie is impressed with the definite and progressive improvement in the teeth of the school children.

A summary of the work done during the year by Mr. Beattie is as follows :—

Total number of children treated 3,939 ; extractions (temporary teeth) 6,028 ; extractions (permanent teeth) 389 ; fillings 1,211 ; and other treatment, *e.g.*, sealings, dressings and cleanings, as required.

Mr. Rae (Cambuslang, Coatbridge, and Rutherglen) reports a very favourable response on the part of those notified for treatment and notes an increasing enthusiasm on the part of the parents for school dentistry. Children are always willing to present themselves as often as may be necessary to obtain the full benefit of treatment. He found, of course, that there were the usual laggards amongst parents who hesitate to fall in with any scheme, but this section of the public is yearly diminishing. Mr. Rae makes some pertinent observations on the cause of dental caries, attributing dental defects largely to the modern type of food. Heredity also plays an important part. Comparing the stamina of the patients in the various districts he finds that the pupils from Rutherglen district displayed a much greater degree of nervousness than children in any other district in which he has worked. Why this should be so is not easy to say, but the fact remains that these children are frequently very difficult to handle and require to have considerable persuasion in order to give them confidence.

Reviewing the whole work, Mr. Rae finds that the bulk of the people in all districts are imbued with the same spirit towards the scheme, and declare that the treatment of children is one of the most desirable features of school life. Earlier treatment—that is, pre-school treatment—is, however, a great desideratum in order to avoid extensive extraction work when the child comes under the care of the school dentist.

A summary of the work overtaken by Mr. Rae during the year is as follows :—

Total number of children treated 3,338 ; extractions (temporary) 6,177 ; extractions (permanent) 1,071 ; fillings 2,928 ; sealing, dressing cleaning, etc., 422.

Mr. Kerr (Bothwell, including Bellshill and Uddingston, Cambuslang (part), and Shotts (part) districts) regrets that the numbers treated during the year are fewer than last year owing to measles epidemics in the districts at the time of his regular visit. He again draws attention to the attitude of many parents who much prefer having their children's teeth extracted to having them conserved by fillings. Especially in the case of temporary teeth is this the case where the parent regards conservative treatment as an absurdity. It is frequently difficult to persuade parents that children of 5 or 6 years old should have any form of dental treatment, as they regard their children mere babies at that age. This reluctance to have children of tender years attended to dentally is pretty general and it will take a long time to overcome the opposition.

The following is a summary of Mr. Kerr's work during the year :—

Total number of children treated 2,960 ; extractions (temporary) 4,790 ; extractions (permanent) 557 ; fillings 773 ; scaling, cleaning, and dressing when required.

Mr. Watson (Cadder, New Monkland, including Airdrie, and Old Monkland, landward, districts) comments on the definite decrease in the number of children requiring attention as a result of having had previous treatment. He also remarks on the antipathy of parents towards conservative treatment, *i.e.*, fillings, etc., the refusals being most common in the case of the 6 to 8 years old children. This is very unfortunate as the 6 years old molars are of the greatest importance and if allowed to become carious may ultimately produce a most uneven set of teeth. All over, however, the response to school dentistry has been excellent and marked benefit, both physical and scholastic, has followed the treatment given.

The following is a summary of the work overtaken by Mr. Watson during the year :—

Total number of children treated 3,418 ; extractions (temporary) 5,879 ; extractions (permanent) 713 ; fillings 1,312 ; scaling, dressing, and cleaning 499.

Mr. Rankin (Blantyre, Hamilton, Larkhall, and Stonehouse districts) reports on the continued and progressive improvement in dental hygiene amongst the school children. Although the numbers notified during the dental inspections have not shown any material decrease in recent years, yet the amount of attention required by the individual pupils is definitely less and it is rare to find amongst the older scholars a really bad case of sepsis. The mouths of the youngest children are certainly the worst found in school. Pre-school dentistry would effect a great change, but the reluctance of parents to have young children dentally treated is a great stumbling block.

The following is a summary of the work undertaken throughout the year by Mr. Rankin :—

Total number of children treated 2,981 ; extractions (temporary) 4,838 ; extractions (permanent) 1,169 ; fillings 571 ; scaling, dressing, and cleaning 113.

Miss Watson (Motherwell, Wishaw, and part of Shotts) in her report of the year's work also comments on the general requests of parents to have their children's teeth extracted rather than filled, even when the decay is of a very minor nature. Attention is drawn to the excellent dental condition of Lithuanian children in one of the schools in Motherwell district. Almost without exception these children presented healthy, clean mouths. On questioning the pupils about their diet it was found that this consisted largely of soups made from coarse green vegetables, oils, and fats. Other children in the same school presenting a poor dental condition usually stated that their meals largely consisted of bread and tea.

TABLE F.

DENTAL TREATMENT.

Summary of Work done in the following School Management Areas during the year ending 31st July, 1930

INSPECTION.				TREATMENT.									No. of PUPILS.	
SCHOOL MANAGEMENT AREAS.	Number of Pupils Examined.	Number of Notices issued to Parents.		Number of Pupils Treated.		Nature of Treatment.							Necessitous.	Partly Necessitous.
						Extractions.		Fillings.		Scaling.	Dressing.	Cleaning.		
		Boys.	Girls.	Boys.	Girls.	Temp.	Perm.	Cem.	Amal.					
Avondale	652	201	200	123	122	368	23	2	95	....	3	3	158	87
Biggar	482	140	153	88	104	295	16	5	84	....	3	2	149	43
Blantyre	3041	766	774	384	415	1263	279	8	106	10	9	....	714	85
Bothwell	9895	3746	3636	1125	1118	3547	422	8	518	1	22	24	1819	424
Cadder	2668	894	955	376	419	1237	177	59	229	15	45	38	435	360
Cambuslang	3259	1344	1420	208	207	737	96	18	174	5	5	3	254	161
Cambusnethan	4606	1756	1658	589	541	1758	186	141	150	4	9	1	861	269
Carluke	1634	428	468	299	327	939	49	3	229	4	9	12	468	158
Carnwath	834	253	254	205	220	638	28	1	73	....	....	....	338	87
Dalserf	2865	850	880	282	290	838	186	10	129	2	14	4	493	79
Dalziel	6617	2233	2123	757	711	2094	194	199	151	4	....	....	1078	390
Douglas	390	143	120	127	125	372	46	....	66	....	3	2	210	42
East Kilbride	508	187	171	112	113	390	19	....	99	....	2	...	127	98
Glassford	136	41	38	29	32	81	7	....	18	....	....	....	52	9
Hamilton	7429	2306	2140	733	690	2466	652	20	255	37	26	11	1147	276
Lanark	2248	692	649	465	424	1377	107	5	266	4	11	5	705	184
Lesmahagow	1663	485	487	378	354	1065	71	2	151	....	2	2	590	142
New Monkland	6415	2254	2240	941	970	3104	392	128	738	57	134	119	1451	460
Old Monkland	10501	4151	4146	1231	1234	5067	806	309	1210	38	67	163	2188	277
Rutherglen	4312	1970	1959	764	809	2615	407	336	1215	14	64	166	1266	307
Shotts	3827	1388	1408	512	578	1653	104	126	154	5	2	....	926	164
Stonehouse	577	170	166	97	90	271	52	....	43	....	....	....	140	47
Southern....	259	90	78	74	60	218	5	....	36	....	1	....	116	18
Total	74818	26488	26123	9899	9953	32393	4324	1380	6189	200	431	555	15685	4167

The summary of Miss Watson's work for the year is as follows :—
Total number of children treated 3,216 ; extractions (temporary) 4,681 ; extractions (permanent) 425 ; fillings 774 ; sealing, dressing and cleaning 17.

All of the dental surgeons desire to express their thanks to the head teachers, class teachers, and janitors who by their interest and active assistance contributed very largely in making the scheme so successful.

Reviewing the County as a whole, a very satisfactory year's work has to be recorded. Of the 52,611 children recommended for treatment 19,852 actually came under the care of the school dentists. These figures do not include those children who, as a result of dental inspection at school, obtained treatment from their private dentist. That the results this year were adversely affected by the withdrawal of the dental nurses to engage in the special milk investigation, and the occurrence of a fairly widespread measles epidemic is certain. On the other hand, it is frequently found that, for no known reason, a periodical wave of enthusiasm for treatment seems to pass over the County. This renaissance is not confined to dentistry alone, but seems to affect all branches of school treatment.

The accompanying statistical Table shows in detail the dental work overtaken in each School Management Area throughout the year.

REPORT ON TREATMENT OF DISEASES OF THE EAR, NOSE, AND THROAT.

AT HAMILTON CLINIC.

(DR. JAMES ADAM.)

For attendance on school children during the year ending 31st July, 1930, the report in connection with affections of Ear, Nose, and Throat, is as follows :—

56 children drawn from 26 schools were sent for examination and treatment. 42 operations under general anaesthesia were done : 36 of them for removal of tonsils and adenoids. In 6 cases the adenoids alone were removed as the condition of the tonsils did not call for removal. Parents express their gratitude at the prompt improvement in the children's general health after this operation, apart from the abolition of mouth-breathing, of snoring, and of nasal discharge, as well as for the improvement in hearing.

Operation in 4 cases sent for it was avoided by simpler measures. In 3 cases operation was postponed because of skin disease ; these children did not return. In one case previously operated on at a Glasgow Hospital a large mass of adenoid was removed with prompt cessation of the nasal suppuration which was the chief symptom ; in another case three operations had been done at a Glasgow Hospital.

It is important to note that the adenoid operation should be performed *before the seventh year*, and not later as happened in 3 cases : otherwise the palate, dental arch and face become permanently deformed and mouth-breathing is inevitable.

For the first time since 1914 there have been cases of post-operative haemorrhage. In one case this happened within 24 hours of operation : this was a red-haired child and red-haired people are notoriously prone to bleed. In the three other cases the bleeding occurred a week after operation (secondary haemorrhage), probably as the result of oral sepsis—some of these children's mouths are horribly septic. In each case the child was removed by motor-car to my house and the tonsillar wounds stitched. To guard against this to some extent an antiseptic mouth-wash is being prescribed as routine.

But there is a much more important matter for consideration. The children to be operated upon come, many of them long distances (6 miles or more), all of them with empty stomachs, on the morning of operation to Beckford Street Hospital. They are watched by the nurses for several hours and sent home the same day. This, especially in winter, is not satisfactory, and the means for preventing and for dealing with emergencies is sadly lacking. A child ought to be in hospital at least a day before and one after operation. With proper accommodation such rare occurrences as secondary haemorrhage could be more easily and more safely handled.

The next point for remark is that the work has become almost entirely one for dealing with tonsils and adenoids. A week after operation the children's ears are inflated by me but I have had only one case of ear disease ; this was sent to the Deaf School. There has been not one single case of "running ear" ; why ? No doubt the prevalence of aural disease in children is being much reduced by the Tonsil and Adenoid operation, but this cannot be the whole explanation.

There has been no case of nasal operation ; the few cases of nasal suppuration have cleared up after removal of adenoids.

In addition to the 42 operations there have been 106 attendances at my house.

AT MOTHERWELL CLINIC.
(DR. JOHN W. LEITCH.)

	Under General Anaesthetic.	Under Local Anaesthetic.
No. of necessitous cases treated for Tonsils and Adenoids ...	121	—
No of necessitous cases treated for Diseases of the Ear	—	19
No of necessitous cases treated for Diseases of the Nose	—	31
	121	50

Total number of attendances of school children at the Clinic	375
Total time occupied by Ear, Nose, and Throat Specialist (approximate number of hours)	62
Total time occupied by Anaesthetist (Approximate number of hours)	45

MINOR AILMENTS CLINICS.

At present there are seven clinics for the treatment of minor ailments, situated at the following centres:—Airdrie, Blantyre, Cambuslang, Hamilton, Larkhall, Motherwell, and Rutherglen. While these clinics serve the majority of the populous areas of the County it is clear that clinics will require to be established in certain other densely populated districts before the scheme of minor ailments treatment can be said to be quite satisfactory. In particular, such clinics are urgently required at Coatbridge, Bellshill or Mossend, Wishaw, and Uddingston. The difficulty, so far, has been the acquiring of suitable premises for the conducting of the clinics, but this should not be an insuperable obstacle.

The success which has followed the establishing of the clinics in 1925 is definite and unmistakable, each year showing a progressive increase in the number of patients who avail themselves of the treatment there afforded. The good which has been achieved cannot be estimated only by the statistical records of patients treated, although these are sufficiently impressive, but one hears from every teacher whose school is fortunate enough to be served by a minor ailments clinic how great a benefit has been conferred on the other pupils in school by eliminating probable sources of contagious disease, and, incidentally, of the undoubted improvement in school attendance. Contagious skin disease (*e.g.* impetigo) is one of the commonest causes of absenteeism, and clinic treatment has reduced the period of absence from school from weeks, and often months, down to days.

The percentage of mothers who accompany their children to the clinics still remains high. This is a most satisfactory feature and is encouraged by the medical staff. No opportunity is missed of giving the parents simple instruction not only as regards the treatment of the present ailment but also as to how such ailments may in future be avoided. It may be said, in passing, that this very satisfactory attendance of parents at the treatment centres applies equally to the ophthalmic and dental clinics.

Reference to the accompanying statistical Table shows that, with the sole exception of Motherwell, diseases of the skin constitute the majority of the cases treated, next in order of frequency being diseases of the eye. There has been an increase this year in the number of cases of ear disease treated, the increase applying to every clinic. How tedious the treatment of a chronic suppuration of the ear may be, and what scant or perfunctory attention the condition frequently receives at home are well known to every medical officer who conducts a general clinic. There is no doubt that radical operation should be performed much more frequently in these cases than is at present done, but it is difficult to persuade parents to have this treatment carried out as the operation is not devoid of a certain amount of risk.

The total number of children treated at the various minor ailments clinics throughout the present year was **8,564**, the collective attendances made being **66,442.** This is a very considerable advance on last year's numbers, being an increase of 1,431 patients and 11,050 attendances. The following is a summary of the numbers treated at the respective clinics.

At Airdrie Clinic (Dr. Wilson) the number of children treated for diseases of the eye was 321 with 2,878 attendances ; for diseases of the skin, 641 with 3,759 attendances ; for diseases of the ear, 106 with 2,503 attendances ; for diseases of the nose, 2 with 19 attendances ; and for ringworm, 13 with 53 attendances. That is, a total of **9,212** attendances was made by the patients during the session.

At Blantyre Clinic (Dr. Cormack) the numbers treated were as follows :—For diseases of the eye, 191 with 2,284 attendances ; diseases of the skin, 825 with 4,722 attendances ; ear diseases, 75 with 1,813 attendances : diseases of the nose, 11 with 286 attendances ; ringworm, 9 with 29 attendances. That is, a total of **9,134** attendances was made during the session.

At Cambuslang Clinic (Dr. Mackenzie) the number of pupils treated was :—For eye diseases, 350 with 2,342 attendances ; skin diseases, 813 with 3,722 attendances ; ear diseases, 123 with 1,707 attendances : nose diseases, 22 with 156 attendances : ringworm, 3 with 16 attendances. Altogether **7,943** attendances were made during the session.

At Hamilton Clinic (Dr. Reekie) the number of pupils treated was :—For eye diseases, 341 with 3,118 attendances ; skin diseases, 1,141 with 5,800 attendances ; ear diseases, 146 with 3,078 attendances; nose diseases, 24 with 396 attendances : ringworm, 5 with 47 attendances : altogether a total of **12,439** attendances at the clinic during the session.

At Larkhall Clinic (Dr. Reekie) the numbers treated were :—For eye diseases, 117 with 1,010 attendances ; skin diseases, 845 with 3,932 attendances ; ear diseases, 101 with 2,992 attendances ; nose diseases, 26 with 480 attendances ; ringworm, 4 with 32 attendances : that is, a total of **8,446** attendances throughout the session.

At Motherwell Clinic (Dr. Young) the numbers treated were :—For eye diseases, 359 with 3,858 attendances ; skin diseases, 565 with 3,175 attendances ; ear diseases, 145 with 2,412 attendances ; nose diseases, 39 with 808 attendances ; ringworm, 9 with 44 attendances : a total of **10,297** attendances throughout the session.

At Rutherglen Clinic (Dr. Mackenzie) the numbers treated were :—For eye diseases, 339 with 2,301 attendances ; skin diseases, 675 with 4,347 attendances ; ear diseases, 141 with 2,134 attendances ; nose diseases, 31 with 161 attendances ; ringworm, 6 with 28 attenddances. That is, a total of **8,971** attendances was made at the clinic during the session.

The accompanying Table G. shows in detail the number of pupils (boys and girls separately) treated, total attendances made, and the nature of the ailments from which the children suffered. A considerable amount of the success achieved at these clinics is due to the head teachers and class teachers sending their pupils punctually to the clinics, and, in particular, to their efforts in having all *early* cases of eye, skin, and ear disease brought under medical care.

In addition to the work undertaken at the above mentioned clinics a very large amount of treatment for minor ailments was given at the clinics attached to the special schools for invalid children at Drumpark, Gateside, and Knowetop. Each of these schools is visited daily by one of the school nurses who undertakes the treatment of those children who may suffer from inflamed eyelids, septic sores, abrasions and similar minor conditions, the cases, if necessary, being seen from time to time by one of the medical officers. Altogether, no fewer than **18,542** treatments were given at these schools during the year. Thus:—

Drumpark Special School Clinic	(Nurse Douglas) ...	8,251
Gateside ,, ,, ,,	(Nurse Park)	6,460
Knowetop ,, ,, ,,	(Nurse Chislett) ...	3,831

MINOR AILMENTS

TABLE G.—Showing (a) Number of Children treated at each Clinic; (b) Total Attendances made; (c) Nature of Ailment from which the children suffered.

	AIRDRIE CLINIC.			BLANTYRE CLINIC.			CAMBUSLANG CLINIC.			HAMILTON CLINIC.			LARKHALL CLINIC.			MOTHERWELL CLINIC.			RUTHERGLEN CLINIC.		
	Boys.	Girls.	Total Attendance.	Boys.	Girls.	Total Attendance.	Boys.	Girls.	Total Attendance.	Boys.	Girls.	Total Attendance.	Boys.	Girls.	Total Attendance.	Boys.	Girls.	Total Attendance.	Boys.	Girls.	Total Attendance.
ases of the Eye—																					
Blepharitis	41	56	964	45	71	1621	43	60	809	53	71	1739	22	21	624	83	115	2333	67	36	937
Conjunctivitis	76	74	1357	10	16	114	75	78	983	56	63	574	18	19	158	53	66	1065	72	77	812
Corneal Ulcer	2	5	42	...	...	...	5	2	39	2	3	23	...	...	...	4	6	96	6	5	47
Corneal Opacities	2	7	178	7	7	427	5	2	149	7	10	450	2	1	112	1	4	96	1	2	147
Ophthalmia and Phlyctenular Conj.	7	9	71	...	1	1	7	5	36	22	9	138	3	3	29	5	6	71	7	4	21
Keratitis-Interstitial ...	2	2	54	1	...	13	2	3	79	...	2	9	...	...	...	...	2	8	3	4	130
Hordeolum (Stye)	20	7	112	11	16	67	16	20	96	26	12	129	16	9	84	6	5	132	20	16	102
Stillicidium	...	...	...	...	...	...	2	5	65	...	1	6	...	...	...	...	...	...	2	4	52
Other Diseases	5	6	100	2	4	41	12	8	86	4	...	50	3	...	3	3	1	57	4	9	53
	155	166	2878	76	115	2284	167	183	2342	170	171	3118	64	53	1010	155	204	3858	182	157	2301
ases of the Skin—																					
Impetigo Contagiosa ...	145	136	1607	204	167	1948	128	94	1100	261	143	1969	176	105	1242	115	74	891	104	91	1010
Eczema	4	1	46	7	21	262	38	23	368	70	34	938	43	27	623	15	14	147	27	18	359
Alopecia Areata	...	1	1	5	2	256	2	...	9	2	...	62	2	1	65	5	1	115	2	...	2
Scabies	20	14	379	9	10	96	9	12	57	24	14	244	12	8	91	4	8	88	11	12	86
Pediculosos Capitis, with Impet. Contag.	...	...	...	1	11	74	8	13	124	9	29	211	1	14	93	44	47	316	7	17	112
Pediculosis Capitis	...	1	2	...	1	1	2	18	37	...	...	...	...	...	...	...	...	...	4	14	74
Dermatitis Seborrhœica ...	4	1	32	3	9	130	9	21	181	...	...	...	...	1	1	10	8	117	18	25	300
Wounds and Septic Sores ...	165	78	1200	203	140	1662	236	97	1267	387	150	2252	316	115	1711	107	89	1226	119	84	1151
Psoriasis	1	2	39	2	4	153	1	1	37	1	...	23	...	...	...	1	3	92	...	2	3
Other Skin Diseases ...	41	27	453	12	14	140	58	43	542	10	7	101	13	11	106	7	13	183	68	52	1250
	380	261	3759	446	379	4722	491	322	3722	764	377	5800	563	282	3932	308	257	3175	360	315	4347
ases of the Ear—																					
Chronic Suppurative Inflammation	60	33	2463	43	25	1795	55	30	1545	75	47	3019	50	37	2944	60	50	2336	54	26	1773
Ceruminous Collection ...	5	2	28	2	3	14	10	7	49	8	1	11	2	...	6	14	11	91	21	8	92
Chronic Catarrh	...	1	6	...	...	...	2	1	9	...	...	...	...	...	...	1	4	51	4	1	23
Other Diseases	2	3	6	1	1	4	11	7	104	11	4	48	6	6	42	4	1	34	17	10	246
	67	39	2503	46	29	1813	78	45	1707	94	52	3078	58	43	2992	79	66	2412	96	45	2134
ases of the Nose—																					
Nasal Catarrh	...	1	11	4	1	112	13	2	115	4	2	81	6	6	203	12	12	472	16	5	108
Nasal Obstruction	...	1	8	3	3	174	6	1	41	10	8	315	11	3	277	6	9	336	8	2	53
	...	2	19	7	4	286	19	3	156	14	10	396	17	9	480	18	21	808	24	7	161
Ringworm of Head ...	1	1	3	1	...	4	3	...	16	...	...	...	...	...	...	2	...	12	1	2	17
Ringworm of Body ...	3	8	50	3	5	25	...	...	...	3	2	47	3	1	32	6	1	32	1	2	11
	4	9	53	4	5	29	3	...	16	3	2	47	3	1	32	8	1	44	2	4	28

APPENDIX.

REPORT BY DR. JOHN MACINTYRE, SCHOOL MEDICAL OFFICER, ON SPECIAL MILK INVESTIGATION, CONDUCTED IN LANARKSHIRE UNDER THE DIRECTION OF THE DEPARTMENT OF HEALTH FOR SCOTLAND, FROM 17TH FEBRUARY TO 20TH JUNE, 1930.

MILK INVESTIGATION.

A special investigation in regard to the nutritive value of milk was carried out under the direction of the Department of Health for Scotland in certain of the schools of the County during the Spring of this year (1930). The main object of the investigation was to ascertain what influence a regular daily ration of milk, which would be additional to the ordinary dietary, would have in promoting an increase in the height and weight of children. The scheme had received the approval of the Education Authority, and the actual carrying out of the details was placed in the hands of the school medical staff, assisted by the members of the teaching staff. The Department of Health for Scotland made themselves responsible for the financial aspect of the investigation as well as for the provision of drinking mugs and record cards, and also undertook to see that a regular supply of milk was delivered each school day at the various schools concerned in the test. The actual scheme commenced on February 17th and finished on June 20th, a period of four months. The daily ration of milk for each child was three-quarters of a pint.

Children Selected.—The total number of children to whom the test applied was 20,000, of whom 10,000 received the milk ration ("feeders") and 10,000 were used for purposes of comparison ("controls"). The schools selected for the test were all situated in the industrial, populous areas of the County, principally in the Middle Ward district, but were not specially chosen because of their being located in areas where industrial distress was prevalent. It is obvious, of course, that with unemployment so widespread throughout the County a substantial percentage of the children, ranging from 30 to 45 per cent. according to locality, came from homes where the parents were either wholly unemployed or only partially employed. In all, 67 schools were selected as test centres. The minimum number of children from any one school was 200 (100 feeders and 100 controls) and the maximum 400 (200 feeders and 200 controls).

Prior to the scheme being actually launched on 17th February, each of the 67 schools concerned in the investigation was visited by one of the school medical officers and the details of the scheme carefully explained to the head teachers.

The age groups from which the "feed" children and "control" children were to be drawn (6 years to 11 years, both years inclusive) were stipulated, but the actual selection of the children was left in the hands of each head teacher. It was strongly emphasised, however that as the purpose of the investigation was to ascertain the effect of a daily extra ration of milk on the growth of an ordinary, average school child, the pupils selected for receiving milk must not consist wholly, or even preponderantly, of the most necessitous, ill-nourished, or most poorly circumstanced in the school, nor, on the other hand, were the "control" children to consist largely of the more robust members of the various age groups. If such pupils were selected the statistical results would be very misleading. This was quite recognised by the teachers, although the impression which many of them had previously obtained, chiefly through the public press, was that the supply of the milk was primarily a charity scheme for the feeding of the distressed. The due admixture of the sexes also was insisted upon, as also the balancing, as far as possible, of the "feeders" and the "controls" from the same age group.

Various expedients were employed by the teachers in the selecting of the two classes of pupils—the "feeder" and "control." In some instances the selection was done by ballot, in others by alphabetical order from the class register. Each of these methods was found to work well and gave a fair average of the pupils in school. If it were found that any age group of "feeders" appeared to give an undue proportion of better nourished children, a substitution of a few of the more under-nourished pupils was effected. The same applied to the control groups. The medical officers who conducted the weighing and measuring of the pupils were definitely of opinion that each school had furnished a very fair average of its ordinary scholars, both as regards the children receiving milk and also as regards controls.

Record Card.—Each child concerned in the test was furnished with a distinctive record card—white for "control," coloured for "feeder"—on which was entered the child's full name, address, and date of birth. The height and weight of each child was carefully recorded at the commencement of the test and again when the test was completed. Absences from school and milk feeds missed were recorded in appropriate spaces, and the back of the record card was employed for noting briefly the cause of the child's absence. On the completion of the final weighing and measuring at a school, the cards were immediately despatched to the Department of Health to be handed over to their statistician.

Measurement of Height and Weight.—The following is a brief summary of the procedure adoptad and the personnel engaged in the recording of the height and weight of the pupils. For the ascertaining of the height of the children, measuring rods, graduated to show feet, inches, and eighths of an inch, were employed, and each child was measured, without boots or shoes, to the nearest eighth of an inch. For the weighing of the children, machines were employed which recorded the weight in stones, pounds, and ounces. The machines, which were all of the same pattern, had not before been in use, and as each was fitted with an arrangement for fine adjustment, careful and accurate weighing to the nearest ounce was secured. All of the children were weighed without their boots or shoes and wearing only their ordinary indoor clothing. The boys were made to turn out the miscellaneous collection of rubbish which is normally found in their pockets, and overcoats, mufflers, etc., were also discarded. Where a child was found to be wearing three or four jerseys—a not uncommon experience—all in excess of one were removed. (It may be said, in passing, that a large proportion of the children were found to be ridiculously overclad). To obviate any slight variation that might exist in the various weighing machines, the same machine was employed at each school both for the initial and final weighing.

The whole procedure was under the direct control of the Principal School Medical Officers, and the entire weighing and measuring of the children—both "feeders" and "controls"—were actually conducted by the assistant school medical officers (5 in number) assisted by members of the school nursing staff (17 in number). A medical officer and a nurse, or two nurses, formed a "team" and each team was allocated its group of schools which were visited in rotation. The same rotation was observed when the final measurements came to be taken at the close of the investigation. The actual time taken to complete the weighing and measuring of the 20,000 children was 10 school days for the initial and slightly less (9½ school days) for the final measuring.

Teachers' Assistance.—The attitude of the members of the teaching staff towards the scheme was, in the great majority of cases, exceedingly favourable. Only in a few instances were there initial protests, chiefly on account of possible interference with the regular school work, but once the scheme was actually in being there was little, if any, objection raised. The head teachers were each allowed to select their own time for the distribution of the milk ration, the only stipulation being that the distribution should be between the hours of 10 a.m. and 12 noon. It was pointed out that the giving of the milk should not be delayed too long as it might interfere with the child's appetite for the mid-day meal. In practically every instance the milk was served between 10 a.m. and 11 a.m.

The actual distribution of the milk at the schools was found to be, on the whole, exceedingly satisfactory. In some few cases only, did there seem to be a degree of fussiness and excitement during the process which the occasion did not appear to warrant, but, generally, the procedure was carried through with an orderliness and precision which were admirable. There can be no doubt that the issuing of the daily ration entailed a good deal of trouble and organisation, especially in those schools which were already over-taxed for class-room accommodation, and it speaks volumes for the patience and forbearance of the members of the teaching staff that the scheme worked as smoothly and efficiently as it did. The vast majority of them had a due appreciation of the nature and value of the investigation, and loyally carried out the provisions of the scheme, but in not a few instances a heartfelt sigh of relief was breathed when the test was completed.

Attitude of Parents.—Owing to the publicity given by the press when the scheme was first mooted, the parents had their interest aroused and their curiosity awakened before the investigation was actually launched. There was, however, strong evidence that in many cases the facts had either not been presented accurately, or that there was marked confusion of thought, it may be wilful, on the part of many parents. Some resented what they chose to regard as a charity, others that their children had been singled out as ill-nourished and in need of additional sustenance. There were others, again, who objected to their children being "experimented upon," but, on the whole, the scheme was received with an enthusiasm which was quite surprising. Even in the case of objectors a visit to the school, where they received enlightenment as to the nature of the investigation, generally cleared up any misunderstanding and permission for their children to take part in the test was usually forthcoming. Only in a negligible percentage of cases were there any confirmed "die-hards" who sternly set their face against their children taking part in the test. As a general rule not only was the scheme warmly welcomed by the great body of the parents, but keen disappointment was frequently expressed that more of the children were not included in the category of "feeders." But as one head teacher remarked: "Some of the parents were disappointed but none was dissatisfied over the result of the ballot."

That the parental interest was maintained throughout the whole period of investigation is evidenced by the remarkably good attendance of the "feeders" at school, and the surprisingly small percentage of withdrawals from the test. These latter almost invariably ceased partaking of the milk with considerable reluctance, generally because it was found that the regular ration did not agree with them or that it was interfering with their appetite for the mid-day meal. In no case, so far as is known, was the withdrawal made capriciously. It is almost certain that the results of the investigation, when they come to be published, will be scrutinised by none more keenly interested than by the parents themselves.

Attitude of the Children.—Although the estimation of the general attitude of the parents towards the scheme must of necessity be somewhat speculative, it is otherwise in the case of the children who were in daily touch with the teachers and whose behaviour during the whole period of the test could be accurately noted. At the commencement of the test when the selection of the "feeders" and "controls" had to be made there was almost universal regret that all could not be included in the former category. When, however, the scheme was fully explained to the children the "drys" took the decision in a sporting spirit and concealed their chagrin very successfully. On the other hand the "wets" did not show any marked desire to exult over their success in the ballot, but rather seemed to evince a sincere sympathy for those who had been unsuccessful. Indeed, as one head teacher reported, the chief point of discipline arising during the distribution of the milk was the prevention of the surreptitious sharing of the ration with classmates of the "dry area."

That there were many sorely disappointed children amongst those not selected for the ration is undeniable, human nature in childhood being very much the same as amongst adults, and in at least one school where the success of the scheme was momentarily jeopardised by a whisper that the milk was "doped" by the addition of castor oil, the rumour was traced to one disgruntled little tattler—a girl of eight years—whose sister had been selected as a "feeder" while she herself was only a "control." Others, similarly disappointed, consoled themselves by declaring that it was only the dunces who got the milk in an endeavour to raise them to the same high mental plane as the "controls."

At the outset of the test enthusiasm ran high but it was not to be expected that this would continue throughout the whole period. In general, interest was well maintained, but as the novelty wore off, the ration was consumed very much as a matter of course. The great majority of the children genuinely liked the milk and were truly sorry when the test was completed. It was observed in most schools that the keenest appreciation of the ration came from the younger children and especially those children who were rather poorly nourished. The senior pupils did not show the same enthusiasm for the diet and were amongst the first to become rather tired of it. In fact they had frequently to have encouragement given to " fire their flagging zeal."

All of the pupils who were old enough to understand the object of the investigation were keenly interested in the final height and weight measurements, and speculation was rife as to what increase in growth each had made during the four months of the test. This applied not only to the " feeders " but also to the " controls " and comparisons, by no means always accurate, were freely exchanged in the playground. Although it would be a Herculean task to give the comparative results in each individual case, it would certainly be of great interest were the final statistics able to show the results for each school and these results communicated to the teachers concerned.

Milk Supply.—All of the milk supplied to the schools in connection with the investigation was Grade A (T.T.) milk, and was delivered each morning in sealed containers by the Scottish Milk Agency, Glasgow.

The organising of the milk supply and the supervision of the quality of the milk were undertaken by the Department of Health for Scotland who specially detailed one of their medical officers (Dr. Gerald Leighton) for this purpose. There was some little delay in the delivery of the milk at the schools on the first day of the investigation, probably due to the drivers of the delivery motors not being fully acquainted with the exact location of the schools, but thereafter no complaint of late delivery was received from any of the schools.

Concurrently with the investigation regarding the nutritive value of milk for children, a test was conducted as to the relative values of pasteurised milk and " raw " or untreated milk. To carry out this test it was decided that approximately one half of the 10,000 " feeders " should receive pasteurised milk throughout the whole of the four months of the test, the other half receiving " raw " or untreated milk. (The exact numbers of these two classes were :—pasteurised milk 4,820 children, raw milk 5,180 children.) The record cards of the two classes of " feeders " were of different colours, pink for pasteurised and yellow for " raw " milk.

In order to see that the quality of the milk supplied was maintained at a proper standard, arrangements were made through the County Medical Officer to have samples taken for analysis of the milk delivered at the schools during the whole period of the test, by members of his staff. In all, 211 samples were taken and of these 9 were found to fall below the standard of milk fat required by statute for Grade A milk, viz. :—3·5 per cent. It is interesting to note that of the 202 samples which conformed to the statutory regulations, the average percentage of milk fat was found to be 3·99, whilst of the 9 samples which fell below the standard, the average deficiency was only 0·3 per cent. The highest percentage of milk fat found in any one sample was 5·1 whilst the lowest found was 3·1.

Prior to the milk being served out to the children, it was thoroughly mixed in the container by means of a long-handled plunger to ensure that the cream would be evenly distributed throughout the whole mass. There was practically no difference in taste between the " raw " and the pasteurised milk, and only on one or two occasions was there any complaint made that the pasteurised milk had a slightly " boiled " taste—possibly due to over pasteurisation.

Results Observed.—Although the final results of the investigation in terms of figures can only be ascertained when the completed statistical tables are forthcoming it was thought to be both interesting and instructive to have some expression of opinion from the teachers on any results of the test which they may have observed during the period of the milk supply. Accordingly, during visits paid to schools while the test was in progress the opportunity was taken to ascertain from many of the teachers their personal observations on the success or otherwise of the scheme. Again, many of the head teachers were good enough to submit a brief written comment on the working and apparent results of the test as it applied to their pupils. As can be readily understood the reports did not suffer from lack of variety—*quot homines tot sententiae*—but from the mass of opinion expressed certain valuable facts have emerged.

As regards improvement in physique the general opinion is that although no appreciable increase in height or weight could be observed amongst the " feeders " as compared with the " controls " there was a definite improvement in the appearance of the former after the test had been in operation for some weeks. This was more noticeable amongst the junior children, and was well marked in the case of children who belonged to the poorer section of the community. These children developed a bloom on the cheek and a sleekness of the skin, not previously seen. The animal spirits of all of the " feeders " seemed to be stimulated, the children becoming more boisterous and more difficult to control than before. As one head teacher wrote : " In the playground, buoyancy and pugnacity are developing to an alarming extent." From another report comes the rather disquieting information that one girl increased so greatly in vitality that she informed her teacher " she could now fight her brother," a feat which was before impossible. Another " feeder " stated he could use dumb-bells with ease, which previously had been quite beyond his powers. One parent whose child partook regularly of his milk ration stated to the teacher that this was the first Spring period for years that her boy had not had an illness. Similar testimony could be repeated in individual cases to great length, but sufficient evidence has been forthcoming from the teachers' reports to prove the undoubted physical benefit accruing to a very large proportion of the children.

How far the increase in vigour amongst the " feeders " was affected by the knowledge that they were expected to react to the extra ration it is difficult to say, although it might form an interesting theme for speculation. Thus, one teacher writes that he informed all those " feeders " in his school who were old enough to appreciate the point that " the partaking of the daily ration of milk was expected to result in an improvement in their physical development," while, on the other hand, the " controls " were urged to do their best to rise superior to their handicap. In other words, the influence of mind over matter.

As regards increased mental activity resulting from the issue of milk, the teachers' opinions are more hesitating. Many emphatically declare that, in individual cases, lassitude gave place to alertness, and even pertness, the change being again more noticeable amongst the younger children. On the other hand, more than one teacher stated that the children became rather drowsy and somnolent for a period after the partaking of their milk, although they do not state whether this was followed by a period of increased liveliness. The reluctance of the teachers to attribute any increase of mental vigour resulting from the milk ration was pretty general, although in several isolated instances a definite, and almost miraculous, improvement was recorded. Thus, a head teacher writes : " One case specially was brought to my notice, that of a boy who was dull, had a poor memory, and stumbled through his reading. I heard this boy (towards the end of the milk test) read fluently and without mistake a paragraph chosen from his book at random. His memory work and arithmetic have correspondingly improved." Another report states that a child who at the beginning of the test was morose and seldom made any effort to speak became lively and chattered almost incessantly. Another writes that amongst the poorer children, especially, more interest was taken in the school work and listlessness was changed into enthusiasm. One teacher who, apparently, wishes to avoid any accusation of rashness of opinion, commenting on the " feeders " writes : " Their vitality is in no way diminished."

Attendance.—There is almost complete unanimity in the reports received that the attendance of the pupils at school was undoubtedly increased. The improvement was not spasmodic but continued thoughout the whole period of the test. It was most unfortunate that soon after the commencement of the scheme a rather severe epidemic of measles broke out involving practically every school concerned in the investigation, but, notwithstanding this, the attendance was well above the average recorded during similar previous outbreaks. One school reports the attendance of the " feeders " to be 96 per cent. during the four months of the test, compared with 90 per cent. for the whole school. The surplus milk remaining after the rations had been issued was distributed amongst the more necessitous children, provided they were not " controls." This also had the effect of improving the attendance of many who were inclined to be irregular at school.

GENERAL OBSERVATIONS.

1. The whole scheme worked smoothly almost from the start and caused very little interference with the school routine.

2. It is generally agreed that three-quarters of a pint of milk is too large a ration, even for the older pupils, to be consumed at one session.

3. The consumption of the milk would be greatly facilitated were a biscuit or half a slice of bread taken along with it.

4. In cold weather the milk should be slightly warmed before being issued.

5. All drinking mugs should be enamelled ;" tinnies " quickly rust and become unsightly.

6. The most favourable time for giving the ration is, probably, 10.30 a.m., and should not be delayed after 11 a.m.

7. The general consensus of opinion is that the younger children reacted much more noticeably to the milk than did the senior pupils.

8. There is a certain proportion of children—a small percentage, certainly,—for whom milk, either in the raw state or pasteurised, is unsuitable.

9. The milk ration should be sipped slowly. Apart altogether from the better nutritive effects obtained by this method of consumption, it was found that the hurried gulping of milk occasionally resulted in nausea.

10. The period of four months over which the test extended, including, as it did, the Easter vacation, during which no milk was issued, is probably too short. More definite and convincing figures would, doubtless, have been obtained had the test lasted six months.

11. The success of the investigation is due, in large measure to the excellent " team work " at the various schools, head teachers, class teachers, and janitors being all genuinely interested in making the test an efficient one. No matter how careful the " staff-work " at headquarters may be, it is the " front line " which has got to make a success of it.

The representative from the Department of Health for Scotland (Dr. Gerald Leighton) was most assiduous in his supervision of the investigation, and by frequent conversations with the school medical officers and visitation of schools throughout the entire period, was in a position to keep his Department fully informed as to the progress of the scheme.